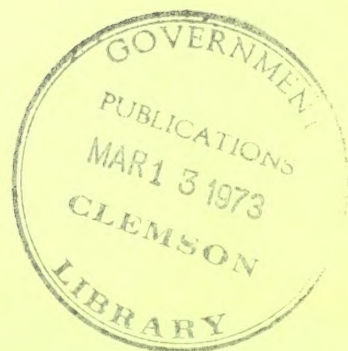


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Repayment of reclamation projects

DEPARTMENT OF THE INTERIOR / BUREAU OF RECLAMATION



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Repayment of reclamation projects



U.S. DEPARTMENT OF THE INTERIOR
Rogers C. B. Morton, Secretary

Bureau of Reclamation
Ellis L. Armstrong, Commissioner

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SUMMARY

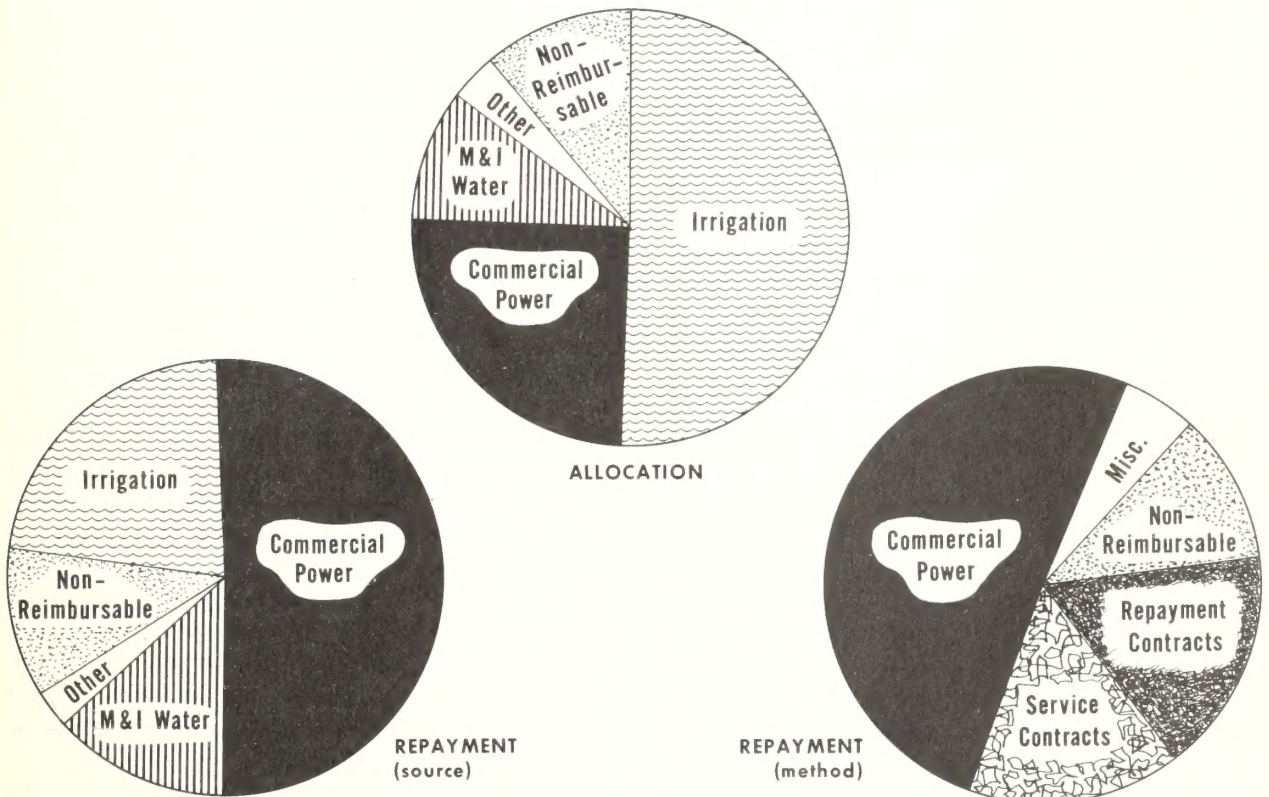
The repayment contracts which schedule annual payments on construction charges are written and executed in accord with the laws that govern the particular project or unit. Many different repayment plans are found in the repayment contracts because the repayment requirements of the general Reclamation law have varied over the years and frequently individual project authorizing and other acts included

repayment provisions tailored to the circumstances on the individual project.

REPAYMENT OF PROJECT COSTS

It has long been the philosophy of the Nation that all Reclamation project costs for the purpose of irrigation, power, and municipal and industrial water supply should be repaid in full. This has been expressed con-

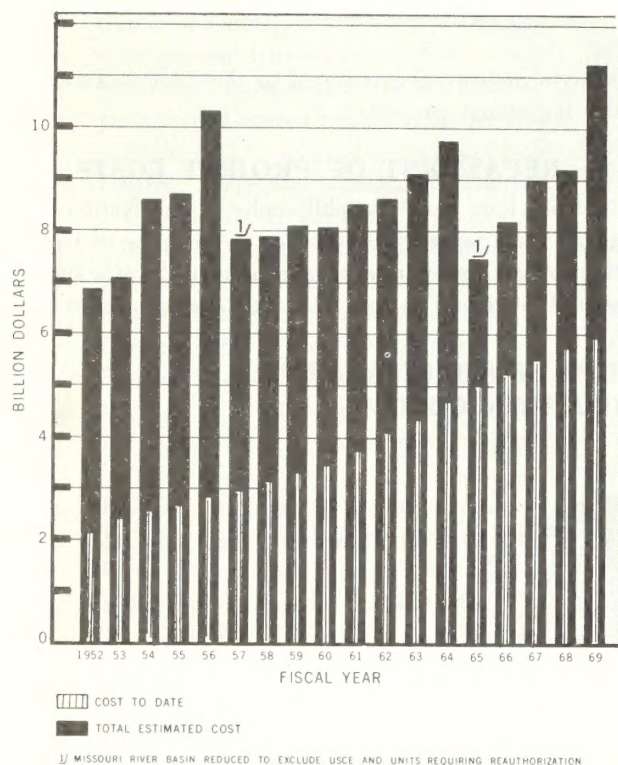
**TENTATIVE ALLOCATIONS AND ULTIMATE REPAYMENT
OF ESTIMATED CONSTRUCTION COSTS
1969**



\$11,240,000,000 TOTAL COST AUTHORIZED

tinuously as a requirement of Federal Reclamation laws enacted by the Congress since the passage of the original Reclamation Act of June 17, 1902. Some multiple-purpose projects have non-reimbursable costs authorized for the functions of recreation, fish and wildlife conservation, flood control, or navigation.

TOTAL ESTIMATED COST OF AUTHORIZED PROJECTS



Repayment of all reimbursable project costs and operation and maintenance costs is a responsibility of the project beneficiaries. Power investments are repaid with interest in a fixed period of time, usually 50 years, from revenues received from the sale of electrical energy produced. Municipal and industrial water supply costs are repaid by revenues from water users in 50 years, with interest if the Secretary determines an interest charge to be proper. Irrigation costs are interest free and are repaid by water users on the basis of their ability to pay as determined by an economic analysis of the particular project. Irrigation costs above the water users' ability to pay are repaid through financial assistance from surplus power revenues and other miscellaneous project revenues.

Prevailing policy is to secure repayment contracts before initiation of construction. Each repayment contract becomes a specialized document worked out by

representatives of the water users and representatives of the United States in accordance with Reclamation laws.

The authority for irrigation repayment contracts, based on ability to pay, rests in the Reclamation Project Act of 1939 (53 Stat. 1187).

Section 4 of the 1939 act provides for a variation in construction charges under a formula similar to that of the 1925 act, but limiting the period of repayment to 40 years. Section 7 of the act further authorizes the Secretary to negotiate repayment contracts in excess of 40 years, limited to then-existing projects or projects under construction, with the requirement for ratification of the new contract by the Congress.

The 1939 act modified the rules of feasibility. It brought into Reclamation law the concept that benefits from Reclamation projects were more than local in scope, and benefits that were national in character should not be a burden on the beneficiaries of Reclamation projects. In other words, certain values assigned to national benefits could be deducted from the cost of a project for repayment purposes. Section 9(b) of the 1939 act provides that costs allocated to flood control and navigation would be nonreimbursable.

An important feature of the 1939 act (as amended by the act of July 2, 1956) for repayment of irrigation works is found in section 9(e), which authorizes irrigation water service contracts for a period not to exceed 40 years, and at rates sufficient to cover an appropriate share of the annual operation and maintenance costs and an appropriate share of construction costs as the Secretary deems proper. Section 9(e) contracts are applicable only to works connected with water supply and do not apply to distribution systems. The Secretary can renew such contracts and can convert them to a 9(d) type contract which includes the construction costs allocated to irrigation as a fixed general obligation of the organization, repayable in annual installments over a fixed period not to exceed 40 years. All contracts for irrigation distribution systems executed in accordance with the 1939 act are limited to 40 years, exclusive of any development period not to exceed 10 years, under provisions of section 9(d) of the act. In like manner, contracts for the sale of power and municipal water are limited to 40 years with the privilege of the Secretary to renew these contracts from time to time.

Reclamation law was further modified in 1946 by passage of the act of August 14, wherein provision was made by Congress that costs properly allocable to



This attractive apartment complex in Amarillo receives its water supply from the Bureau of Reclamation's Canadian River Project in Texas.

fish and wildlife benefits need not be repaid by the project beneficiaries.

Similarly the Flood Control Act of 1962 made provision for nonreimbursable funds to construct replacements of existing public roads at higher standards.

Emergency relief projects: During the period 1933 to 1940 Congress appropriated large sums for undertaking public works throughout the United States. These sums were appropriated to the Federal Emergency Relief Administration, Public Works Administration, and the Works Progress Administration. The acts of Congress appropriating these funds in general provided that the works were to be constructed in accordance with existing laws controlling their authorization, and under the direction of the agency responsible for the administration of existing laws. Reclamation projects were among the public works initiated under the authority vested in the President for the expenditure of relief funds. Such initial authorizations were later ratified by findings of feasibility under Reclamation law, or by a specific authorization by Congress. In general, these relief acts in no way modified the feasibility requirements of Reclamation law. If anything, they established a further criterion that the particular project should, besides satisfying Reclamation law, provide a basis for work relief. In

return, the project would be entitled to financing on the basis of a grant or loan from a relief appropriation. Reclamation projects initiated under the relief acts were later completed by regular Reclamation appropriations made on the fully reimbursable basis.

Water conservation and utility projects: Another outgrowth of the depression years was the effort of Congress to provide relief through Reclamation for distressed conditions in the Western Plains and Mountain States affected by the extreme droughts of the mid-1930's. Congress' efforts here were directed to providing for small irrigation projects, usually with only a few thousand acres or less, as contrasted with large developments authorized under the Reclamation Act. The Interior Department Appropriation Act for 1940 (53 Stat. 719) contained \$5,000,000 for water conservation and utilization projects in the Great Plains. The projects were subject to such repayment provisions as the President determined. Authority stemmed from the Water Conservation and Utility Project Act of August 11, 1939 (53 Stat. 1418), known as the Wheeler-Case Act, and subsequent amendments.

A number of repayment contracts have been negotiated by the Bureau of Reclamation with water users' organizations for these projects. A development period of not to exceed 10 years is permissible and repayment of reimbursable costs is to be contracted in 40 annual installments. The July 16, 1943, amendment of the Wheeler-Case Act (57 Stat. 566) authorized the Secretary of the Interior, upon agreement with the Secretary of Agriculture, to designate as a project under the W.C.U. Act any project authorized for construction from appropriations under the water conservation and utility provision in the Interior Department Appropriation Act of 1940.

This 1939 act, as amended, authorized the construction of small projects on the basis of joint findings of feasibility by the Secretary of Agriculture and the Secretary of the Interior and approved by the President. The act provided originally for reimbursable appropriations combined with nonreimbursable participation by the Works Progress Administration and the Civilian Conservation Corps, thereby making projects with a high total cost per acre feasible, provided sufficient relief labor could be made available to hold the reimbursable portion to a reasonable amount. This act ordinarily would have expired with termination of the WPA and CCC at the beginning of World War II. Congress, by the act of July 16, 1943, modified the original law to permit the completion of water con-



The Bureau's Friant-Kern Canal, 152 miles long, furnishes water to this young vineyard near Fresno, Calif.

servation and utility projects which were justifiable as an aid in winning the war.

Special project authorizations: Almost all Reclamation projects are now authorized by special acts of Congress. These acts of Congress are too numerous to quote in detail here, but generally they anchor to the requirement of basic Reclamation law requiring the cost to be returned by the beneficiaries. Special features of most of these acts make provisions for repayment that differ somewhat from the standard requirements of Reclamation law. These differences usually are in the form of an extension of the repayment period for that portion of the project to be repaid by irrigation water users.

The Flood Control Act of 1944 also provided for construction by the Secretary of the Interior of additional irrigation works in connection with dams and reservoirs operated by the Secretary of the Army. The Bureau of Reclamation makes repayment arrangements with the beneficiaries for the portion of the cost of Corps of Engineers projects which is allocated to irrigation.

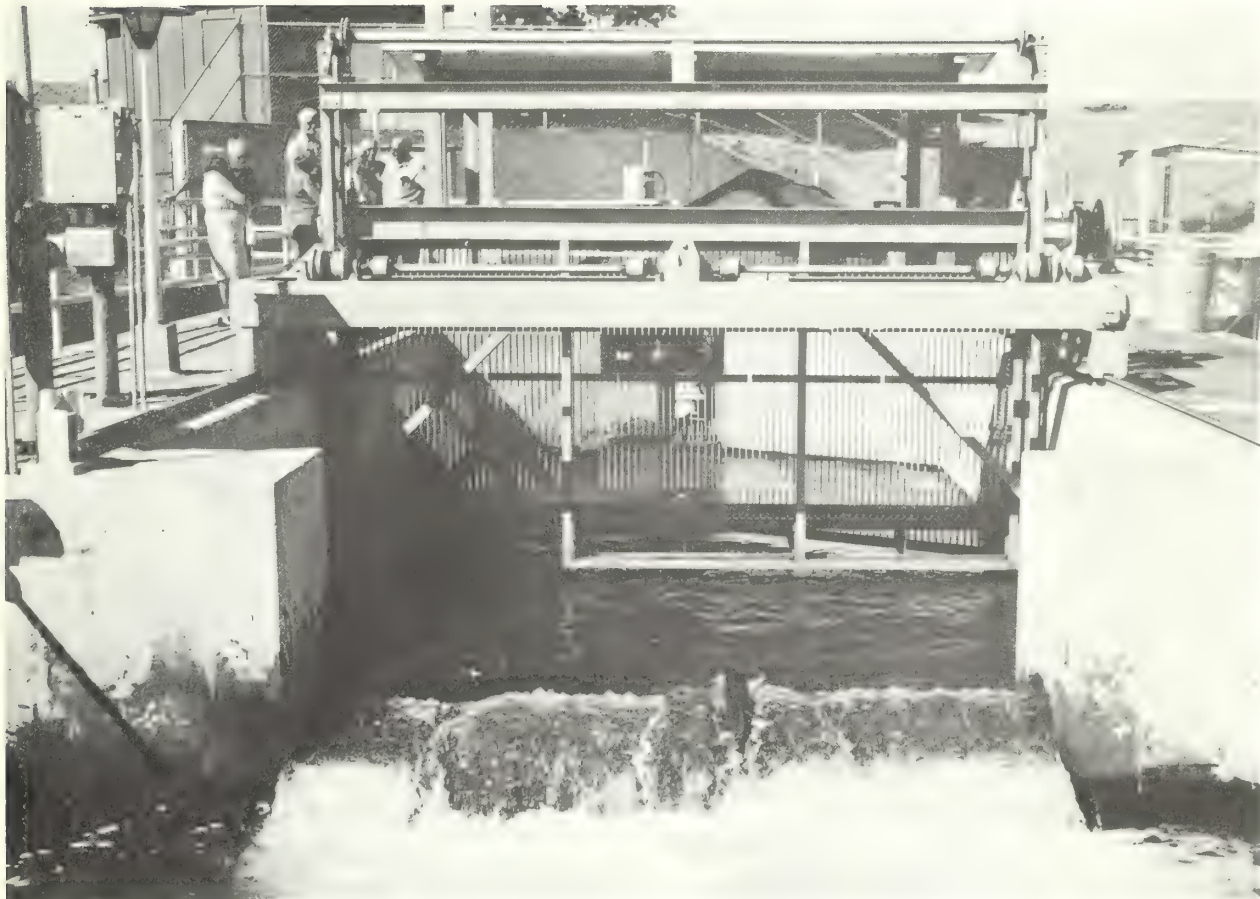
RECLAMATION REPAYMENT LAWS

Act of June 17, 1902: The Reclamation Act of June 17, 1902 (32 Stat. 388), authorized the issuance of water-right applications by which individual water users contracted to repay their portion of the construction cost of a project in a period of 10 years.

Act of February 21, 1911: The Warren Act (36 Stat. 925) provided for the disposition of surplus water to individuals or irrigation enterprises outside Government Reclamation projects on terms determined to be just and equitable. The terms of payment now usually run from 10 to 40 years.

Act of August 13, 1914: The 20-year repayment plan, authorized by the Reclamation Extension Act of August 13, 1914 (38 Stat. 686), was designed to permit a longer term for payment than the Reclamation Act of 1902.

Act of May 15, 1922: By the act of May 15, 1922 (42 Stat. 541), the Secretary of the Interior was authorized to contract with legally organized districts, and to dispense with water-right applications on the part of landowners and entrymen.



Salmon and steelhead on the way to spawn are recorded passing through the Bureau's Red Bluff Diversion Dam's fish ladder. California.

Act of December 5, 1924: The Fact Finders' Act of December 5, 1924 (43 Stat. 672), provided for a plan of payment based on 5 percent of the average gross crop value in a district for a 10-year period. These payments, as a general rule, will run for long terms of years. Authority for additional contracts of this type was repealed in 1926.

Act of May 25, 1926: The Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), authorized a 40-year repayment period in place of the crop repayment plan. Some old contracts were renegotiated under this act and many new contracts were entered into on the 40-year basis provided by this law.

Act of August 4, 1939: The Reclamation Project Act of 1939 (53 Stat. 1187), provides for flexibility in determining the annual rate of repayment for new contracts, again on a crop-income basis, but total repayment must be made in 40 years for distribution systems. A development period not to exceed 10 years

may be established, from the time water is delivered to a block of land, before payment of construction charges commences. Water service contracts are authorized for storage and carriage works. It also authorizes the negotiation of amendatory contracts for old projects, under the same rules, or for submission of the most practical amendatory plan to Congress for its approval.

The Reclamation Project Act of 1939 authorizes the United States to allocate portions of the total cost of a project to be repaid from power revenues or from municipal water revenues, and to flood control and navigation on a nonreimbursable basis. This made feasible for construction many projects where the water users could not reasonably be expected to repay the entire costs.

Act of August 14, 1946: This amendment (60 Stat. 1080) to the Fish, Wildlife and Game Act of 1934 provides for nonreimbursable allocations to the preser-



Fun on Lake Powell, the magnificent reservoir behind Glen Canyon Dam in Arizona, built by Reclamation.

vation and propagation of fish and wildlife for new projects.

Act of October 7, 1949: A number of contracts have been entered into pursuant to the Rehabilitation and Betterment Act (63 Stat. 724). This act provides that repayment of rehabilitation and betterment expenditures on Federal Reclamation projects is to be in installments fixed in accordance with the ability of the water users to pay, and, to the fullest practicable extent, is to be scheduled for return concurrently with the water users' existing construction repayment obligations. Determinations of the Secretary of the Interior with regard to the rate and schedule for repayment of such expenditures are not effective until either 60 days after

they have been submitted to House and Senate Committees on Interior and Insular Affairs, or earlier if the committees approve.

Act of July 4, 1955: Public Law 130—84th Congress (69 Stat. 244), as amended May 14, 1956 (70 Stat. 155), authorized loans for the construction of distribution systems on authorized Federal Reclamation projects by irrigation districts and other local water user organizations. The terms of repayment of the loans are similar to the standard repayment provisions of Reclamation law except that a contribution of up to 10 percent of the cost of construction may be required of the local organization.

Act of June 13, 1956: Public Law 575—84th Con-



Morrow Point, on the Gunnison River in Colorado, is one of the Bureau's most recently-constructed dams. Its *underground* powerplant is a Reclamation first.

gress (70 Stat. 274) provides essentially that drainage and minor completion work on projects being constructed pursuant to the Federal Reclamation laws may be performed by the repayment organization concerned using federally appropriated funds.

Act of July 2, 1956: Public Law 643—84th Congress (70 Stat. 483) provides for the inclusion in any long-term water service contract pursuant to section 9 (e) of the Reclamation Project Act of 1939 a provision for renewal if the contracting organization so requests. It also provides for the crediting of water user payments in excess of annual operation and maintenance costs against the organization's appropriate share of

the water supply works construction costs until such time as the total credits equal the organization's share of the construction costs. Thereafter no construction component would be included in the water service charges. Public Law 643 also provides that a long-term section 9(e) contract can be converted to a section 9(d) construction repayment contract at such time as the amount of the construction costs remaining to be amortized can be repaid within the term (usually 40 years) of a contract under section 9(d). The act provides that any party to any contract entered into pursuant either to section 9(e) or section 9(d) will have a first right to a stated share of the project's

available water supply during the term of the contract or any renewal thereof.

Act of August 6, 1956: The Small Reclamation Projects Act of 1956 (70 Stat. 1044), as amended, authorizes loans and grants to irrigation districts, conservancy districts, other public agencies, and States for the construction of projects similar to those of the regular Reclamation program and which do not exceed \$10,000,000 in total cost.

While such projects must have irrigation as a principal purpose, they may also provide for power production, flood control, recreational benefits, fish and wildlife improvement, and municipal and industrial water supplies.

Loans under this act are to be repaid in a period not to exceed 50 years, exclusive of a development period of not to exceed 10 years, with no interest on those portions of the reimbursable cost properly chargeable to the irrigation of lands not in excess of 160 acres in a single ownership.

The portions of the reimbursable cost properly chargeable to other purposes—including the irrigation of lands in excess of 160 acres in a single ownership, commercial power, or municipal, domestic and industrial water—bear interest. The rate is determined each year by the Secretary of the Treasury.

Act of July 3, 1958: The Water Supply Act of 1958 (72 Stat. 297) recognizes the primary responsibilities of the States and local interests in developing water supplies for domestic, municipal, industrial, and other purposes and that the Federal Government should participate and cooperate with States and local interests in developing such water supplies in connection with the construction, maintenance, and operation of Federal navigation, flood control, irrigation, or multiple-purpose projects. The act permits storage capacity to be included in any Bureau of Reclamation or Corps of Engineers reservoir for present or anticipated future demand or need by States or local interests for municipal or industrial water. The maximum permissible allocation of construction costs to anticipated future demands for municipal and industrial water supply is 30 percent of the cost of the dam and reservoir project. Costs allocated to municipal and industrial water supply for any given user must be repaid within 50 years after reservoir storage capacity is first used for municipal and industrial water supply purposes or within the life of the project, whichever period is shorter. Dam and reservoir costs allocated to deferred municipal and industrial water supply are interest free for a maximum period of 10 years. This act is an alternative

to and not a substitute for the Reclamation Project Act of 1939.

Act of August 8, 1958: Public Law 611—85th Congress (72 Stat. 542) amends the Reclamation Project Act of 1939 to provide for the adoption and operation of a variable payment formula over the repayment period authorized for any project contract unit. The act provides that a general repayment obligation of the organization may be spread in annual installments, of the number and amounts fixed by the Secretary, over the repayment period authorized for the project, or as near to the authorized repayment period as is consistent with the adoption and operation of a variable payment formula which, being based on full repayment in such period under average conditions, permits variance in the required annual payments in the light of economic factors pertinent to the ability of the organization to pay. Thus, the Secretary of the Interior is authorized to select a variable repayment formula that best fits the specific circumstances of an individual project.

Act of September 21, 1959: Public Law 86-308 (73 Stat. 584) amends the Reclamation Project Act of 1939 to permit the Secretary of the Interior, upon finding that a construction charge installment cannot be met by the repayment organization without undue burden on the water users, to defer such payment and reschedule it within the established repayment period. All deferment actions must be reported to the Congress. Any proposal to defer and extend the repayment period requires specific legislation.

Act of August 28, 1962: Public Law 87-613 (76 Stat. 407) amends the Reclamation Project Act of 1939 to authorize the Secretary of the Interior, where he deems necessary and in the best interest of the United States and the water users organizations: (1) to establish irrigation blocks where they have not been previously provided for, (2) to amend repayment contracts to extend an established development period to a date not to exceed 10 years from its commencement and, within a prescribed time, to terminate supplemental contract arrangements for deferment of certain construction payments and instead, to extend the development period, and (3) to provide payment of annual construction installments under existing contracts in two parts on such dates in the calendar year as may best enable the contracting organization to meet its payments. This act permits the Secretary to alleviate undue burdens which have been placed on many water users, and which are disadvantageous to the United States due to changes in economic conditions and

other factors subsequent to execution of the repayment contract.

Act of October 23, 1962: Section 208 of the Flood Control Act of 1962 (76 Stat. 1196) provided that nonreimbursable project funds could be used for public roads in connection with any authorized water resources project. They may be provided to improve, reconstruct, or maintain existing public roads which it is in the public interest to use as a means of providing access to the projects, or to provide substitute roads when necessary.

Act of June 21, 1963: Public Law 88-44 (77 Stat. 68) provides that the Secretary of the Interior, upon request of the other party to any long-term contract for municipal, domestic, and industrial water supply entered into under the Reclamation Project Act of 1939, shall: (1) include provision for renewal subject to renegotiation of (a) the charges set forth in the contract in the light of circumstances prevailing at the time of renewal, and (b) any other matters with respect to which the right to renegotiate is reserved in the contract; and (2) include provision that the other party shall have a first right to a stated share or quantity of the project's water supply available for municipal, domestic, or industrial use.

Act of July 9, 1965: Public Law 89-72 (79 Stat. 213), known as the Federal Water Project Recreation Act, establishes uniform policies for the inclusion of recreation and fish and wildlife enhancement developments at planned and existing Federal water resources development projects and encourages non-Federal participation in those project purposes.

In planning Reclamation projects, the act requires that a non-Federal public body agree to administer the land and water areas and bear not less than one-half of the separable costs and all costs of operation, maintenance, and replacement. Execution of such an agreement is a prerequisite to the construction of the facilities.

Costs allocated to recreation and fish and wildlife enhancement cannot exceed one-half of the total project cost. The non-Federal share of separable costs may be provided in cash, by the provision of land, interests therein, or facilities. The non-Federal share also may be repaid, with interest, within 50 years from the first use of project facilities for recreation or fish and wildlife. In the latter case, repayment may be financed entirely from entrance and user fees collected at the project by non-Federal interests.

At existing Reclamation projects, the act authorizes the Secretary to provide public outdoor recreation or

fish and wildlife developments, but precludes reallocation of project costs. Execution of an agreement with a non-Federal public body also is required. The Federal expenditure on any one existing reservoir is limited to \$100,000.

STATUS OF CONSTRUCTION PROGRAM

The financial status of repayment on Federal Reclamation projects is calculated at the close of each fiscal year by the project offices.

The studies afford a means of analysis of development, success, and difficulties for each project or major division of a project.

The following schedules at the end of this summary provide the project details from the project cost and repayment studies.

SCHEDULE I.—Summary of repayment of Reclamation project construction costs.

SCHEDULE II.—Tentative allocations of estimated total construction costs.

SCHEDULE III.—Repayment of reimbursable costs by repayment contracts.

SCHEDULE IV.—Repayment of reimbursable costs by power revenues.

SCHEDULE V.—Repayment of reimbursable costs from special sources.

Cost estimates for incomplete work are subject to constant revision due to changes in plans as construction begins on new sections of projects, price changes, closer approximations in estimating completion as work progresses, etc.

CONSTRUCTION STATUS AND REIMBURSABILITY

(Unit—\$1,000)

Bureau of Reclamation projects	Total
Total estimated cost -----	\$11,243,989
Status of construction:	
Completed features in service -----	5,344,790
Features under construction -----	612,212
Subtotal -----	5,957,002
Balance to complete -----	5,286,987
Reimbursability:	
Reimbursable -----	9,979,467
Nonreimbursable -----	1,264,522

SUMMARY OF ALLOCATION OF COSTS

The objective of cost allocation is to distribute the costs of multipurpose projects equitably among the several purposes served. Law and policy require allocation of costs to reimbursable and nonreimbursable

purposes to test economic feasibility by a comparison of estimated project costs with anticipated revenues and, after authorization or construction, to establish and measure compliance with project financial requirements.

Total estimated construction costs include, in addition to normal costs of construction, interest during construction, property transfers to water users for operation, Federal investment in rehabilitation of water user facilities, and any other similar costs during construction.

Reimbursable costs are all costs allocated for ultimate repayment, costs prepaid by contributions or by any non-Federal source, or any other costs not declared nonreimbursable by act of Congress.

Nonreimbursable or excess costs are all federally financed costs (including those of agencies other than the Bureau of Reclamation) declared as such by act of Congress or any costs in excess of the amount declared reimbursable in accordance with an act of Congress.

As shown by schedule II, the total estimated cost of Bureau construction was allocated to the following purposes as of June 30, 1969:

		Percent
Total estimated cost	\$11,243,988,943	100.00
Reimbursable, subtotal	9,979,466,688	88.75
Irrigation	5,691,140,051	50.61
Commercial power	2,818,404,472	25.07
Municipal, industrial, and domestic water	1,102,808,347	9.81
State share, Central Valley—		
San Luis	172,132,000	1.53
Allocation in process	120,946,000	1.07
Flood control	27,953,566	.25
Recreation	15,976,085	.14
Mexican Treaty service	14,135,000	.13
Fish and wildlife conservation	12,720,986	.11
Highway and road construction ...	3,050,181	.03
Water quality studies	200,000	..
Nonreimbursable, subtotal	1,264,522,255	11.25
Flood control and navigation	620,422,996	5.52
Fish and wildlife conservation	302,304,708	2.69
Irrigation	103,210,987	.92
Recreation, health, and safety	101,803,619	.91
Water quality studies	42,916,295	.38
Missouri River Basin investigations .	42,570,478	.38
Highway and road construction	34,334,380	.31
Other purposes	16,958,792	.14

Nonreimbursable costs: Nonreimbursability is determined in three principal ways:

(1) By purpose, according to basic statutory authority, shown in schedule VI	\$1,161,311,268
(2) By adjustments to the reimbursable irrigation allocation, authorized by Congress in 1926 and similar subsequent acts, charging off specific costs for specific reasons, shown in schedule VII	39,089,080
(3) By acts of Congress applying to irrigation allocations of individual projects or groups of projects, also shown in schedule VII .	64,121,907
Total	1,264,522,255

CONTRACTUAL OBLIGATION OF WATER USERS

The reimbursable allocations shown in schedule II, "Tentative Allocations of Estimated Total Construction Costs," is the basis for determining the repayment obligation of the water users.

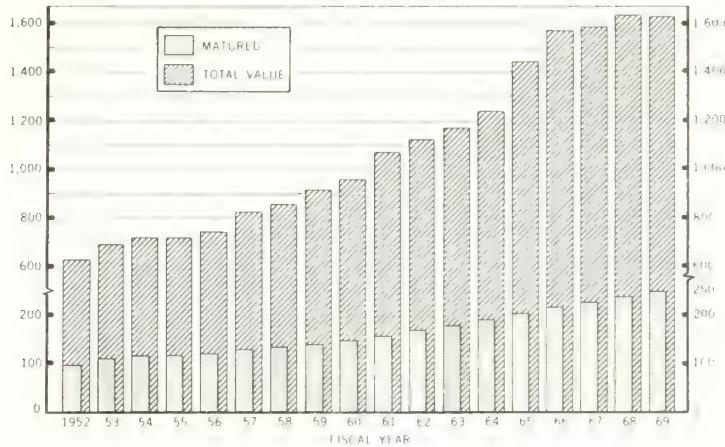
Historically these costs have been repaid by contracts negotiated with the water users with assistance from revenues derived from sale of electric power generated on the projects. Contributions and other miscellaneous revenues also provide a means for water users to repay the costs allocated to them. Since the Reclamation Project Act of 1939, described above, the sale of water without a fixed repayment period provides a primary method of repayment. The three repayment schedules following schedule II show how the reimbursable costs of each project are being repaid.

For most projects the reimbursable irrigation and municipal water allocations are repaid by repayment contracts. Schedule III shows this type of repayment. Included in the contractual obligations, and therefore in the schedule, are certain obligations for unpaid operating costs or penalties for delinquencies which have been "funded."

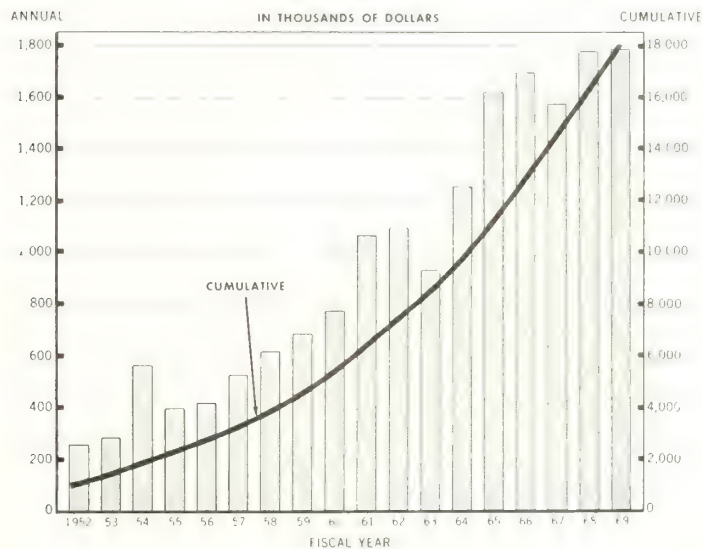
Of the total obligation of water users which will probably be repaid by repayment contracts, \$1.600 billion were negotiated and in effect on June 30, 1969.

Current status of repayment contracts: Of the \$1.600 billion total contracted obligation of the water users for repayment, \$241 million had become due by June 30, 1969. Uncollected items against these maturities were negligible. Most of these payments are made into the Reclamation fund and all become available for reappropriation by the Congress to construct future projects.

WATER USERS REPAYMENT CONTRACTS
CUMULATIVE TO F.Y. 1952 THRU F.Y. 1969
IN MILLIONS OF DOLLARS



MUNICIPAL AND INDUSTRIAL WATER REVENUES
F.Y. 1952-1969



APPLICATION OF POWER REVENUES TO REPAYMENT

The total cost allocated to commercial power for repayment is \$2,818,000,000, as shown in schedule IV. Repayment of this and other costs by commercial power revenues is also shown.

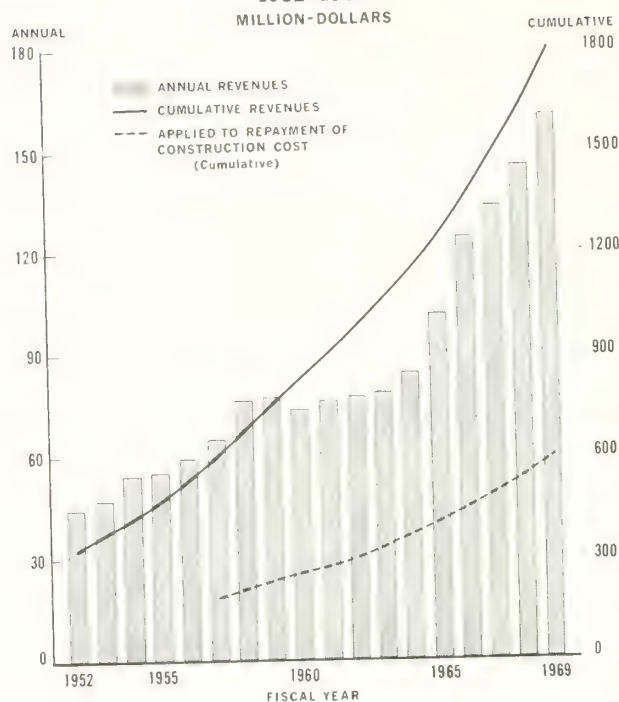
Except for a few repayment contracts and miscellaneous income, this will be repaid by the power revenues. In addition to repaying the commercial power allocation, power revenues will also be applied against the following:

(1) Irrigation allocation	\$2,864,000,000
(2) Flood control allocation for Hoover Dam .	25,000,000
(3) Servicing Mexican Treaty on Parker-Davis	14,135,000
(4) Recreation, and fish and wildlife	14,346,000

Thus, power revenues will be used to repay about \$5.7 billion out of the total reimbursable amount of \$10 billion. Power rates are established to pay the operation and maintenance expenses and interest charges as well as these construction costs. Total revenues to date are over \$1 billion.

Power revenues from most projects are paid into the Reclamation fund as direct collections along with other payments by the water users. They become available for appropriation by Congress to construct future projects and to operate those which are in service. Revenues from Hoover powerplant are paid into the Colorado River Dam Fund, from which appropriations for operation and maintenance are made annually. These revenues are also used to repay, with interest, the

COMMERCIAL POWER REVENUES 1952-1969



advances made to the fund for construction of the project, to make payments in lieu of taxes to Arizona and Nevada, and to finance the Colorado River Development Fund. Revenues from the Colorado River Storage project powerplants will similarly finance the

Upper Colorado River Basin Fund. The Fort Peck Continuing Fund is a revolving fund for financing the costs of operating that project, including those of the Corps of Engineers, and for repaying the construction costs.

ULTIMATE REPAYMENT OF REIMBURSABLE COSTS (Unit—\$1,000)

Reimbursable allocations	Total	Ultimate repayment				
		Repayment contracts	Water service contracts and rentals	Commercial power revenues ¹	Contributions and water users advances	Depreciation and miscellaneous ²
Total	\$9,979,467	\$1,921,899	\$1,763,729	\$5,719,756	\$216,191	\$357,892
Irrigation	5,691,140	1,452,220	1,316,562	2,864,381	10,400	47,577
Commercial power	2,818,405	6,834	44	2,801,693	3,710	6,124
Municipal and industrial water	1,102,808	454,477	447,123		14,732	186,476
Flood control	27,954	259		25,000	2,615	80
Highway construction	3,050				3,050	
Recreation	15,976	1,046		3,442	9,537	1,951
Fish and wildlife conservation	12,721	693		10,905	15	1,108
Mexican Treaty service	14,135			14,135		
State share—Central Valley project	172,132				172,132	
Water quality studies	200			200		
Allocation in process	120,946	6,370				114,576

¹ Includes BPA power revenues applied to USBR projects.

² Includes Colorado River Development Fund, derived from power revenues of the Colorado River Dam Fund.

SCHEDULE I.—SUMMARY OF REPAYMENT OF RECLAMATION PROJECT CONSTRUCTION COSTS
JUNE 30, 1969

SUMMARY

XXI

Project and State (Excludes Federal investment under the loan program)	Actual cost, June 30, 1969	FINAL COST-ESTIMATED OR ACTUAL (Schedule II)				REPAID TO JUNE 30, 1969 (Schedules III, IV and V)			
		Total project	Nonreimbursable	Reimbursable	Total ¹	Matured repayment contracts	Power revenues ²	Special sources	
Total, U.S. Bureau of Reclamation	\$5,957,002,332	\$11,243,988,943	\$1,264,522,255	\$9,979,466,688	\$1,080,178,841	\$240,843,095	\$595,770,019	\$251,780,519	
Arbuckle, Okla.	9,805,340	9,805,340	2,564,233	7,241,107	10,224	62,721		10,224	
Arnold, Oreg.	242,926	242,926		242,926	62,721				
Avondale, Idaho	572,800	572,800		572,800	73,427				
Baker, Oreg.	8,086,125	8,086,125	2,586,128	5,499,997	193,238	187,512		6,726	
Balmorhea, Tex.	407,742	407,742	181,698	226,044	65,419	65,419			
Belle Fourche, S. Dak.	5,101,474	5,101,474	1,524,867	3,576,607	1,981,627	1,979,302		5,325	
Bitter Root, Mont.	1,796,660	1,796,660	2,310	1,794,350	609,778	603,073		6,707	
Boise, Idaho—Oreg.	67,647,175	67,647,175	15,023,773	52,623,402	25,939,202	19,302,552	4,835,071	1,801,579	
Bostwick Park, CRS/P, Colo.	4,552,481	6,500,000	1,700,000	4,800,000	91,780			91,780	
Boulder Canyon, Ariz.—Calif.—Nev.: All-American Canal System	68,116,480	69,122,507	8,636,315	60,486,192	12,291,483	11,546,600		744,883	
Hoover Dam and Powerplant	173,998,922	177,227,037	3,635,658	173,591,379	39,642,971		39,268,723	374,248	
Buffalo Rapids, Mont.	5,123,930	5,255,588	3,845,378	1,410,210	384,061	350,177		33,884	
Buford-Trenton (old), N. Dak.	223,423	223,423	221,424	1,999	1,999			1,999	
Buford-Trenton, N. Dak.	1,239,194	1,239,194	1,234,567	4,627	4,627			4,627	
Burnt River, Oreg.	601,026	601,026		601,026	451,098	449,807		1,291	
Cachuma, Calif.	43,910,726	43,910,726	13,788	43,896,938	5,326,658	866,508		4,460,150	
Canadian River, Tex.	89,558,388	91,823,000	6,949,249	84,873,751	136,561			136,561	
Carlsbad, N. Mex.	5,473,148	9,332,403	1,582,395	7,750,008	2,620,799	2,565,813		54,986	
Central Arizona, Ariz.—N. Mex.		851,712,000	106,418,000	745,294,000					
Central Utah, CRS/P, Utah:									
Bonneville unit	29,997,309	322,032,000	18,870,000	303,162,000	1,023,482			1,023,482	
Jensen unit	717,793	11,469,000	1,194,000	10,275,000	69,000			69,000	
Uapaco unit	1,033,385	17,820,000	6,308,000	11,512,000	40,000			40,000	
Vernal unit	8,033,550	8,884,435	188,000	8,696,435	198,715	91,433		197,282	
Subtotal	39,782,037	360,205,435	26,560,000	333,645,435	1,331,197	91,433		1,239,764	
Central Valley, Calif.	1,276,924,209	2,253,279,000	214,392,000	2,038,887,000	370,264,504	13,177,341	179,433,586	177,653,577	
Corps of Engineers units*		240,700,000	47,600,000	193,100,000					
Flood control features omitted			(86,430,000)						
Associated USCE projects*	125,616,013	125,616,013	89,191,586	36,424,427	15,198,112	8,975,846		6,222,266	
Chief Joseph Dam, Wash:									
Chelan Division, Manson unit	689,477	13,935,000	17,500	13,935,000	2,060	1,928		132	
Foster Creek Division	2,631,455	2,667,455	18,204	8,098,878	57,581	50,646		6,935	
Greater Wenatchee Division	8,117,082	3,610,000	202,000	3,470,000					
Oroville-Tonasket unit	2,756,317	6,449,000		6,247,000					
Whitstone Coulee unit	3,017,299								
Subtotal	17,211,630	34,778,537	377,704	34,400,833	59,641	52,574		7,067	
Colbran, Colo.	16,577,600	16,652,600	769,645	15,882,955	333,185	67,218	162,009	103,958	
Colorado-Big Thompson, Colo.	162,675,904	162,740,385	15,267	162,725,118	32,205,808	6,213,929	25,251,927	739,952	
Colorado River, Tex.	23,954,299	23,954,299	18,443,479	5,510,820	320			320	
Colorado R. Front Work and Levee System	46,449,368	58,587,384	57,162,520	1,424,864	1,424,864			1,424,864	
Colorado River Storage, various Recreation and fish and wildlife*	586,055,095	661,568,255	26,328,455	635,239,800	2,658,407		-1,015,571	3,673,978	
La Barge participating project	25,794,277	75,406,160	75,406,160		65,076			65,076	
Fine River Extension (deauthorized)	222,108	222,108	(20,653)	201,455	53,356			53,356	
Additional authorized participating projects		(243,522)	(53,670)	(189,852)					
Subtotal	397,212,000	397,212,000	17,837,000	379,375,000					
Columbia Basin, Wash Third powerplant	621,767,318	1,433,534,000	51,966,474	1,381,567,526	169,381,812	1,539,991	157,244,368	10,641,491	
	52,284,476	470,415,000		470,415,000					
Crescent Lake Dam, Oreg.	328,098	328,098		328,098	72,000	72,000			
Crooked River, Oreg.	10,597,515	10,759,803	2,177,929	8,581,874	311,478	37,596	253,426	20,456	

Dalton Gardens, Idaho	563,707	1,617,758	563,707	78,470	78,470	391,706
Deschutes, Oreg.	13,199,032	8,163,000	11,581,274	1,962,311	1,578,608	5,500
Dixie, Utah	60,237,000		52,077,000			18,927
Eden, Wyo.	9,773,850		11,167,160			22,396
Emery County, CRS P. Utah	12,564,637	2,768,057	11,167,160	18,927	787,490	175
Emery, Utah	12,564,637		11,167,160			
Falcon, Tex (USDS-IBWC)*	7,136,304		7,136,304			
Florida, CRS P. Colo	11,159,972	785,000	10,373,810	22,896		
Fort Sumner, N. Mex.	2,433,320		2,433,320	347,064		
Frenchtown, Mont.	296,294	1,050	295,244	119,265	149,265	2,500
Fruitgrowers Dam, Colo.	200,500		200,500	135,229	135,229	
Fruiting Mesa, CRS P. Colo.	604,293	2,183,000	32,006,000	181,115		181,115
Fryland, Arkansas, Colo.	74,485,824	75,030,000	166,697,000	100,900		100,900
Garden City, Kans.	334,475					
Gila, Ariz.	64,689,161	13,668,755	61,759,135	1,091,856	645,421	446,435
Grand Valley, Colo.	8,219,176	2,240,115	5,979,061	3,075,834	2,790,283	285,551
Grants Pass, Oreg.	1,019,574	210,779	808,795	125,583		
Hammond, CRS P. N. Mex.	4,446,302	130,000	5,243,972	8,047		8,047
Hondo, N. Mex.	339,377	339,377				
Humboldt, Nev.	1,341,739		1,341,739	953,645	925,128	
Hungry Horse, Mont.	102,139,585	24,603,334	77,536,251	54,971,942	54,935,275	28,517
Huntley, Mont.	1,920,972	481,724	1,439,248	1,403,975	1,375,581	70,854
Hyrum, Utah	951,895		954,895	537,723	525,523	27,494
Inlake, Mont.	87,513	47,313	40,200	19,598		12,200
Kendrick, Wyo.	32,632,033		33,209,233	10,303,071	10,169,586	150,830
King Hill, Idaho	1,877,732	1,877,732				
Klamath, Calif. Oreg.	20,204,846	264,298	21,813,184	16,920,954	5,113,066	11,807,888
Klamath Orchards, Idaho	2,484,397		2,484,397	653,136	653,136	160
Little Wood River, Idaho	2,056,550	582,441	1,474,109	134,945	134,945	
Lower Rio Grande, Tex.	16,405,516		17,005,299	184,453	138,000	46,453
Lower Yellowstone, Mont.—N. Dak.	3,697,842	609,604	3,088,238	3,714,025	3,668,994	45,031
Lyman, CRS P. Wyo.—Utah	7,064,628	2,013,958	11,295,942	63,354		63,354
Mancos, Colo	3,917,971	3,027,155	3,890,816	231,779	225,000	6,779
Mann Creek, Idaho	3,851,437	194,756	3,656,681	20,270		
McMillan Delta, N. Mex.	519,784	277,178	932,000		20,270	
Michaud Flats, Idaho	4,667,736		4,904,986	278,584	3,840	274,744
Middle Rio Grande, N. Mex.	35,481,741	18,494,805	16,986,936	5,577,582	4,299,227	1,278,355
Milk River, Mont.	10,694,930	3,397,351	7,297,379	20,284,298	2,684,165	386,165
Mimodoka, Idaho—Wyo.	38,853,919	113,330	39,063,260	25,151,544	20,284,419	2,582,310
Mirage Flats, Nebr.	3,101,835	2,251,086	847,749	262,621	256,700	5,831
Missoula Valley, Mont.	278,282	240,172	37,810	8,764		
Missouri River Basin:						
Bureau of Reclamation units	994,024,399	316,803,345	1,340,410,437	53,668,241	617,275	3,395,836
Requiring reauthorization**	28,251,807	147,984,440	1,867,304,534	1,278,723		1,278,723
Other project costs assumed	1,733,952		698,577			
Other agency costs assumed	698,577					
Corps of Engineers units*	1,225,395,700	365,726,100	891,415,800	10,356,952	10,356,952	
Other Interior Department agencies*	32,305,000	32,305,000				
Missouri River Basin—Subtotal	2,282,409,435	862,818,885	4,101,563,300	44,590,012	39,687,722	4,674,559
Moon Lake, Utah	1,800,860	200,500	1,600,360	1,034,974		8,093
Mountain Park, Okla.	20,740,000		16,021,500			
Navajo Indian Irrigation, N. Mex.*	29,643,718	176,500,000				
Newlands, Nev.—Calif.	8,001,836	4,592,762	3,409,074	3,077,228	3,004,552	72,676
Newton, Utah	18,712,592	7,047,345	11,350,231	161,777	161,546	231
Norman, Okla.	18,376,780		11,329,435	6,285		6,285
North Platte, Nebr.—Wyo.	34,325,451	664,924	33,660,527	21,763,124	18,828,956	243,986
Ogden River, Utah	5,699,971	278,000	5,421,971	2,571,704	2,476,505	95,199
Okanogan, Wash.	2,485,065	978,030	1,602,145	461,092	402,336	58,756
Orland, Calif.	3,299,383		3,299,383	2,477,649	2,452,427	25,222
Owyhee, Oreg.—Idaho	19,775,826		19,775,826	5,533,813	5,213,358	320,455
Pacific N.W. SW Intertie, various	68,729,862	169,468,847	169,468,847	37,215	313,128	350,343
Palmadene, Idaho—Wyo.	62,558,957	22,600,415	40,013,563	11,864,834	2,095,534	68,525
Palmetto Bend, Tex.	38,007,000	10,151,500	27,855,500			
Palo Verde, Ariz.—Calif.	4,912,186	3,210,988	1,701,198	421,448	395,250	26,198
Panama, CRS/P. Colo	8,007,791	442,879	7,646,639	182,553		182,553
Parker-Davis, Ariz.—Calif.—Nev.	150,520,286	1,106,036	151,672,281	57,288,883	43,965,428	13,323,455
Pecos River Basin Water Salvage, N. Mex.—Tex.						
Pine River, Colo.	1,121,134	2,520,000	1,520,457	778,892	754,220	24,672
Preston Bench, Idaho	3,468,609	1,948,152	450,300	63,324		

SCHEDULE I.—SUMMARY OF REPAYMENT OF RECLAMATION PROJECT CONSTRUCTION COSTS—Continued

JUNE 30, 1969

SUMMARY

XXIII

Project and State (Excludes Federal investment under the loan program)	Actual cost, June 30, 1969	FINAL COST-ESTIMATED OR ACTUAL (Schedule II)			REPAID TO JUNE 30, 1969 (Schedules III, IV and V)		
		Total project	Nonreimbursable	Reimbursable	Total ¹	Matured repayment contracts	Power revenues
Provo River, Utah.	37,796,553	37,796,553	58,335	37,738,218	10,170,910	10,224,405	131,968
Rapid Valley, S. Dak.	920,224	920,224	108,628	511,596	291,888	280,292	114,537
Rathdrum Prairie, Idaho.	1,430,465	1,430,465	173,951	1,256,514	235,740	234,152	11,596
Rio Grande, N. Mex.	31,206,348	31,681,980	3,567,135	28,114,845	9,373,104	9,393,670	1,363,128
Riverton, Wyo.	30,038,878	30,911,621	1,055,031	29,856,590	28,979,718	1,379,718	682,417
Rogue River Basin, Ore.	29,974,250	29,974,250	880,152	29,094,098	1,798,269	34,864	7,905
Salt River, Ariz.	37,090,560	47,353,751	1,330,816	46,022,935	21,636,699	22,421,602	1,313,686
San Angelo, Tex.	25,399,604	25,375,259	11,293,069	14,282,190	170,566	107,962	62,604
San Diego, Calif. (USN)*	30,090,216	30,090,216		30,090,216	16,108,098	16,108,098	
San Juan-Chama, CRS P., Colo.— N. Mex.	18,912,915	78,118,000	6,173,000	71,975,000	651,892		651,892
San Luis Valley, Colo.	3,871,882	3,871,882	1,548,753	2,323,129	7,203	6,170	733
Sanpete, Utah	133,940	133,940	59,100	74,840	269,699	268,535	1,164
Santa Maria, Calif.	11,650,219	11,650,219	2,466,982	9,183,237	1,256,381	1,189,522	67,062
Savery-Pot Hook, CRS P., Colo.— Wyo.	829,570	15,406,000	104,000	15,302,000	238,966	119,800	238,966
Sedfield, Utah	943,837	943,837	691,081	252,756	156,922		7,122
Seedskader, CRS P., Wyo.	23,711,911	47,653,838	1,771,881	45,881,957	111,917		122,504
Shoshone, Wyo. Mont.	23,875,795	23,906,132	2,482,282	21,423,850	9,145,192	4,422,867	204,111
Silt, CRS P., Colo.	7,408,977	7,801,006	799,699	7,001,307	33,585		33,585
Smith Fork, CRS P., Colo.	4,685,737	1,665,737	285,643	1,400,094	112,606	11,000	71,606
Solano, Calif.	38,937,429	38,937,429	1,135,006	37,802,423	2,326,167		2,326,167
Southern Nevada Water, Nev.	11,644,533	83,251,429	1,408,740	81,842,689	281,295	1,848	281,295
Spokane Valley, Wash.	6,106,133	6,106,133		6,106,133	13,999	3,310,062	12,151
Strawberry Valley, Utah.	3,502,479	3,502,479	154	3,502,325	3,364,247		237,876
Sun River, Mont.	10,454,367	10,454,367	913,424	9,540,943	3,193,187	3,467,988	25,199
Teton Basin, Lower Teton Division, Idaho.	1,570,862	52,034,000	6,923,000	45,111,000	96,771	40,816	67,955
The Dalles, Western Division, Ore.	6,844,912	6,844,912	26,071	6,818,841	672,298	671,943	355
Truckee Storage, Nev., Calif.	1,093,328	1,093,328	81,296	1,012,032			
Tualatin, Ore.	21,055,100	21,055,100	2,364,000	18,691,100	674,894	655,395	19,499
Tucuman, N. Mex.	16,860,925	17,091,262	10,250,181	6,841,078	880,492	685,762	191,790
Umatilla, Ore.	5,321,616	5,321,616	2,308,811	3,012,805	2,348,721	2,098,797	139,724
Uncompahgre, Colo.	10,814,185	10,887,093	3,001,287	7,885,806	1,274,740	1,240,943	13,817
Vale, Ore.	8,435,963	8,435,963	1,727,948	6,708,015	1,203,935	526,932	676,983
Ventura River, Calif.	32,015,289	32,015,289	100,000	31,915,289	8,551	8,551	
Vernon, N. Mex.	2,593,312	2,825,715	717,802	2,107,913	1,576,057	1,551,057	25,403
W. C. Austin, Okla.	12,309,007	12,309,007	9,499,152	2,809,855	109,305	109,226	579
Wapinitia, Juniper Division, Ore.	31,538,996	31,538,996	34,340	31,504,656	188,735	174,210	14,525
Washita Basin, Okla.	18,814,291	61,289,000	17,384,941	43,904,059	4,279,915	3,853,381	426,534
Washoe, Nev., Calif.	95,097,382	105,147,169	25,869,000	79,278,169	2,730,781	2,684,870	45,911
Weber Basin, Utah	2,528,637	2,528,637	18,485,163	2,528,637	302,560	247,560	55,000
Weber River, Utah					22,471,946	19,697,197	2,108,402
Whitita, Cheney Division, Kans.	14,778,177	14,778,177	8,791,841	5,986,336	5,900,895	5,349,162	211,576
Williston, N. Dak.	409,695	409,695	109,093	300,602	1,544,842	393,231	651,608
Yakima, Wash.	64,901,243	65,295,966	1,145,123	64,150,843			
Yuma, Ariz., Calif.	7,472,060	7,472,060	1,324,571	6,147,489			
Yuma Auxiliary, Ariz.	1,482,513	1,482,513	81,749	1,400,764			
Grand total, U.S. Bureau of Reclamation, U.S. Corps of Engineers, etc.	7,461,833,974	15,204,872,087	2,109,235,541	13,095,636,546	1,101,649,342	265,927,039	584,625,577

*Nonbureau projects for which Bureau of Reclamation has been designated to handle repayment of indicated reimbursable costs. Amounts are included in grand total line only.
 *Public Law 86-442, Aug. 14, 1968, requires reauthorization by Congress of any Missouri River Basin unit not already under construction. Line 1 of these schedules incorporates the latest available allocations of currently authorized units. Pending completion of a new project-wide economic analysis, the ultimate project total and repayment are based on the latest repayment studies and are included in the grand total line only.
¹ Contractual arrangements for certain projects have given repayment contract credit for power revenue, or power credit for other revenues. Totals for these projects have been adjusted (\$8,211,92 for all projects).
 * See schedule IV for explanation of credit entries.

SCHEDULE II.—TENTATIVE ALLOCATIONS OF ESTIMATED TOTAL CONSTRUCTION COSTS OF AUTHORIZED PROJECTS
JUNE 30, 1969

Project and State (Excludes Federal investment under the loan program)	Estimated total construction costs	REIMBURSABLE COSTS				NONREIMBURSABLE OR EXCESS COSTS AUTHORIZED			
		Irrigation	Commercial power	Municipal and industrial water	Flood control and other ¹	Irrigation	Flood control and navigation	Fish and wildlife conservation	Recreation, health and safety, and other ²
Total, U.S. Bureau of Reclamation	\$11,243,988,943	\$5,691,140,051	\$2,818,404,472	\$1,102,808,347	\$367,113,818	\$103,210,987	\$620,422,096	\$302,304,708	\$238,583,564
Arbuckle, Okla.	9,805,340	242,926	—	7,241,107	—	—	299,953	1,808,838	r 455,442
Arnold, Oreg.	572,800	5,499,997	—	—	—	—	—	—	—
Avondale, Idaho	8,086,125	—	—	—	—	—	—	—	—
Baker, Oreg.	—	—	—	—	—	—	—	—	—
Balmorhea, Tex.	407,742	226,044	—	—	—	—	—	—	—
Belle Fourche, S. Dak.	5,101,451	3,576,607	—	—	—	—	—	—	—
Bitter Root, Mont.	1,796,660	1,794,350	—	—	—	—	—	—	—
Boise, Idaho—Oreg.	67,651,447	47,234,852	—	—	—	—	—	—	—
Boatwick Park, CRS/P, Colo.	6,500,000	4,800,000	5,373,401	—	F 19,421	86,693	14,937,080	800,000	r 900,000
Boulder Canyon, Ariz.— Calif.—Nev.	—	—	—	—	—	—	—	—	—
All-American Canal System	69,122,507	60,037,178	—	449,014	—	4,049,873	4,586,442	—	—
Hoover Dam and power- plant	177,227,037	—	147,440,005	1,151,374	F 25,000,000	3,845,378	—	—	b 3,635,658
Buffalo Rapids, Mont.	5,255,588	1,410,210	—	—	—	—	—	—	—
Buford-Trenton (old), N. Dak.	223,423	1,000	—	—	—	—	—	—	—
Buford-Trenton, N. Dak.	1,239,161	1,627	—	—	—	221,424	437,435	—	f 110,614
Burnt River, Oreg.	43,910,726	601,026	—	—	—	686,518	—	—	—
Cachuma, Calif.	91,823,000	24,339,492	—	19,557,446	—	—	—	—	r 13,788
Canadian River, Tex.	9,332,403	7,750,008	—	84,873,751	—	550,408	2,876,138	2,973,111	r 1,100,000
Carlsbad, N. Mex.	—	—	—	—	—	—	1,007,612	—	r 24,375
Central Arizona, Ariz.— N. Mex.	851,712,000	358,157,000	97,542,000	232,768,000	R 1,733,000 W 333,000 D 54,761,000	19,970,000	10,964,000	28,728,000	r 4,306,000 w 42,450,000
Central Utah, CRS/P, Utah:	—	—	—	—	—	—	—	—	—
Bonneville unit	322,032,000	178,172,000	48,366,000	76,624,000	—	—	3,474,000	14,366,000	b 1,030,000
Jensen unit	11,669,000	11,628,000	—	8,647,000	—	—	293,000	628,000	h 273,000
Upalco unit	17,820,000	11,512,000	—	—	—	—	247,000	5,876,000	b 185,000
Vernal unit	8,884,435	8,010,362	—	685,000	H 1,053	—	—	188,000	—
Subtotal	360,205,435	199,322,382	48,366,000	85,956,000	1,053	—	4,014,000	21,058,000	1,488,000
Central Valley, Calif.	2,253,279,000	1,215,039,000	376,283,000	196,429,000	W 9,652,000 D 59,815,000 R 172,132,000	—	101,214,000	53,432,000	r 39,822,000 h 19,924,000
Corps of Engineers units ³ omitted	240,700,000	111,500,000	81,600,000	—	—	—	23,220,000	9,280,000	r 12,420,000 w 2,680,000
Flood control features Associated USCE projects*	125,616,013	34,272,877	2,151,550	—	—	—	(86,430,000)	89,191,586	—
Chief Joseph Dam, Wash.: Chelan Division, Manson unit	13,935,000	13,935,000	—	—	—	—	—	—	—
Foster Creek Division— Greater Wenatchee Division	2,667,455	2,649,955	—	—	—	—	—	17,500	—
Oroville-Tonasket unit	8,117,082	8,098,878	—	—	—	—	—	18,204	—
Whitestone Coulee unit	3,610,000	3,470,000	—	—	—	—	—	140,000	—
Subtotal	6,449,000	6,247,000	—	—	—	—	—	202,000	—
Subtotal	34,778,537	34,400,833	—	—	—	—	—	377,704	—

SUMMARY

Collbran, Colo.	16,652,600	6,190,999	9,691,956					728,036	b	41,609
Colorado-Big Thompson, Colo.	162,740,385	101,563,810	61,161,308					15,267	p	4,956,221
Colorado River, Tex.	23,954,299		5,510,820							
Colorado River front work and levee system.	58,587,384									
Colorado River Storage, various	661,568,255	94,982,253	522,745,756							
Recreation and fish and wildlife*.	75,406,160									
La Barge participating project.	222,108	201,455								
Additional authorized participating projects.	397,212,000	293,181,000								
Columbia Basin, Wash.	1,433,534,000	1,201,939,711	179,235,665							
Third powerplant.	470,415,000		470,415,000							
Crescent Lake Dam, Ore.	328,098	328,098								
Crooked River, Ore.	10,759,803	8,581,874								
Dalton Gardens, Idaho.	563,707	563,707								
Deschutes, Ore.	13,199,032	11,488,459	67,939							
Dixie, Utah.	60,237,000	48,260,000								
Eden, Wyo.	11,467,169	11,467,169								
Emery County, CRS/P, Utah.	13,785,465	11,017,408								
Falcon, Tex. (USDS-FBWO).	7,136,304		7,136,304							
Florida, CRS/P, Colo.	11,164,810	10,379,810								
Fort Sumner, N. Mex.	2,433,320	2,433,320								
Frenchtown, Mont.	296,294	296,294								
Fredericksburg, Colo.	200,309	200,309								
Fruitland Mesa, CRS/P, Colo.	34,189,000	32,006,000								
Fryingpan-Arkansas, Colo.	241,727,000	93,704,000	37,983,000							
Garden City, Kans.	334,475									
Gila, Ariz.	75,447,874	61,759,135								
Grand Valley, Colo.	8,219,176	5,765,392	213,669							
Grants Pass, Ore.	1,019,574	808,795								
Hammond, CRS/P, N. Mex.	5,393,972	5,243,972								
Hondo, N. Mex.	339,377	339,377								
Humboldt, Nev.	1,341,739	1,341,739								
Hungry Horse, Mont.	102,139,585									
Huntley, Mont.	1,920,972	1,437,008	77,476,279							
Hyrum, Utah.	954,895		2,240							
Intake, Mont.	87,513	954,895								
Kendrick, Wyo.	33,209,233	15,457,692	17,751,541							
King Hill, Idaho.	1,877,732									
Klamath, Calif.—Oreg.	22,077,482	21,813,184								
Lewiston Orchards, Idaho.	2,484,397	1,438,681								
Little Wood River, Idaho.	2,056,550	1,474,109								
Lower Rio Grande, Tex.: La Feria Division.	5,683,299	5,683,299								
Mercedes Division.	11,322,000	11,322,000								
Subtotal.	17,005,299	17,005,299								
Lower Yellowstone, Mont.—N. Dak.	3,697,842	3,088,238								
Lyman, CRS/P, Wyo.—Utah.	13,309,000	11,295,942								
Mancos, Colo.	3,917,971	890,816								
Mann Creek, Idaho.	3,851,837	3,656,681								
McMillan Delta, N. Mex.	1,209,178	932,000								
Michael Flats, Idaho.	4,901,986	4,652,630								
Middle Rio Grande, N. Mex.	35,481,741	15,900,413								
Milk River, Mont.	10,694,930	7,201,379								
Minidoka, Idaho—Wyo.	39,176,590	34,309,046								
Mirage Flats, Nebr.	3,101,835	847,749	4,754,214							
										</

SCHEDULE II.—TENTATIVE ALLOCATIONS OF ESTIMATED TOTAL CONSTRUCTION COSTS OF AUTHORIZED PROJECTS—Continued
JUNE 30, 1969

Project and State (Excludes Federal investment under the loan program)	Estimated total construction costs	REIMBURSABLE COSTS				NONREIMBURSABLE OR EXCESS COSTS AUTHORIZED			
		Irrigation	Commercial power	Municipal and industrial water	Flood control and other ¹	Irrigation	Flood control and navigation	Fish and wildlife conservation	Recreation, health and safety, and other ²
Missoula Valley, Mont.	278,282	37,810				240,472			
Missouri River Basin: Bureau of Reclamation units.	1,657,213,782	884,497,070	404,521,380	46,986,116	(W 1,252,886 R 3,132,983)	228,072	189,451,490	59,967,215	$\left\{ \begin{array}{l} m \\ h \\ r \end{array} \right. \begin{array}{l} 1,000,000 \\ 4,963,500 \\ 18,622,590 \end{array}$
Requiring reauthorization ^{3a} .	2,015,288,974	1,616,520,767	246,765,613	4,018,154			82,339,041	60,502,113	$\left\{ \begin{array}{l} r \\ i \end{array} \right. \begin{array}{l} 147,349 \\ 4,995,937 \end{array}$
Other project costs assumed ^{3b} .	1,733,952	1,733,952							
Other agency costs assumed ^{3b} .	698,577				R 698,577				
Corps of Engineers units ^{3b} .	1,257,141,900	302,894,300	584,190,400	4,331,100			334,724,600	5,868,000	$\left\{ \begin{array}{l} r \\ h \end{array} \right. \begin{array}{l} 17,458,500 \\ 7,675,000 \end{array}$
Flood control units omitted ^{3b} .							(1,256,909,000)		
Other Interior Depart- ment agencies ^{3b} .	32,305,000								i 32,305,000
MRB—Subtotal ⁴ .	4,964,382,185	2,805,646,089	1,235,477,393	55,335,370	5,104,448	228,072	606,515,131	126,337,328	129,738,354
Moan Lake, Utah.	1,800,860								
Mountain Park, Okla.	20,740,000	1,600,360		15,153,000	(W 661,500 R 207,000)	200,500	2,713,000	1,395,500	r 610,000
Navajo Indian Irrigation, N. Mex.	176,500,000								
Newlands, Nev.—Calif.	8,001,836	3,067,323	341,751			176,500,000 4,592,762			
Newton, Utah.	712,592	350,231				362,361			
Norman, Okla.	18,376,780			11,329,435			2,999,155	2,603,211	$\left\{ \begin{array}{l} h \\ r \end{array} \right. \begin{array}{l} 950,000 \\ 491,979 \end{array}$
North Platte, Nebr.—Wyo.	34,325,451	26,670,849	6,989,678			664,924			
Ogden River, Utah.	5,099,971	5,125,856	261,115	35,000		278,000			
Okanogan, Wash.	2,580,175					978,030			
Orland, Calif.	3,209,383	1,602,145							
Owyhee, Oreg.—Idaho.	19,775,826	3,292,383							
Pacific NW-SW Interille, various.	169,468,847	19,775,826							
Palmadisa, Idaho—Wyo.	62,613,978	26,834,316	13,179,247				22,456,000		r 114,115
Palmto Bend, Tex.	38,916,000			27,017,000	R 838,500		885,791	2,926,000	r 7,225,500
Palo Verde, Ariz.—Calif.	4,912,166	1,701,198			H 93,152	2,325,197	171,247	271,632	
Paonia, CRS/P. Colo.	8,089,318	7,553,487							
Parker-Davis, Ariz.—Calif. —Nev.	152,778,317	11,964,266	112,362,821	13,170,437	(H 39,757 T 14,135,000)				$\left\{ \begin{array}{l} p \\ h \\ e \end{array} \right. \begin{array}{l} 70,079 \\ 872,395 \\ 163,562 \end{array}$
Pecos River Basin Water Salvage, N. Mex.—Tex.	2,520,000								
Pine River, Colo.	3,468,000	1,520,457				2,520,000 150,857	1,797,295		
Preston Bench, Idaho.	450,300	6,450,400							
Provo River, Utah.	37,736,553	6,317,599	1,070,383	30,350,236		15,485			m 42,850
Rapid Valley, S. Dak.	1,920,224	1,150,606		500,000		408,928			
Rathdrum Prairie, Idaho.	1,430,465	1,250,514							
Rio Grande, N. Mex.—Tex.	31,684,980	17,621,291	10,496,254			439,474	1,519,650		$\left\{ \begin{array}{l} r \\ t \end{array} \right. \begin{array}{l} 608,311 \\ 1,000,000 \end{array}$
Riverton, Wyo.	30,041,621	28,473,421	513,169			1,055,031			
Rogue River Basin, Oreg.	29,974,250	19,843,779	9,250,319				576,981	137,273	r 165,898
Salt River, Ariz.	47,353,731	46,022,935			F 259,636	1,330,816	8,246,049	2,978,548	r 68,472
San Angelo, Tex.	25,573,259	8,886,332		5,136,222					
San Diego, Calif. (USN)*.	30,090,216			30,090,216					

[illegible]

*Nonbureau projects for which Bureau of Reclamation has been designated to handle repayment of indicated reimbursable costs. Amounts are included in grand total line only.
 **Public Law 88-442, Aug. 14, 1964, requires reauthorization by Congress of any Missouri River Basin units not already under construction. Line 1 of these schedules incorporates the latest available allocations of currently authorized units. The ultimate project totals and repayment are based on the latest available repayment studies and are included in the grand total line only.

DEFINITIONS:
Estimated total construction costs include interest during construction, transitional development costs, property transfers to water users for operation. Federal investment in rehabilitation of water user facilities and any other similar costs during construction.

Reimbursable costs are all costs allocated for ultimate repayment, costs prepaid by contributions or by any non-Federal source or any other costs not declared nonreimbursable by act of Congress. **Nonreimbursable** or **excess** costs are all federally financed costs (including those of agencies other than the Bureau of Reclamation) declared as such by act of Congress, or any costs in excess of the amount declared reimbursable in accordance with an act of Congress.

1. "Other" reimbursable costs are coded as follows:

- D—Deferred allocations
- F—Flood control benefits
- H—Highway construction
- Q—Water quality

R—Recreation
T—Mexican Treaty service
W Fish and wildlife conservation
2 "Other" nonreimbursable costs are coded as follows:

Other nonreimbursable costs are coded as follows:

- a-Alleviation of salinity
- b-Nonproject costs
- c School facilities

f—Funds provided by U.S. Corps of Engineers
h—Highway construction to standards (and airport)
i—Investigations
m—Municipal and military water supply

p—Power
m—Municipal and minitary water supply
r—Recreation and health and safety
s—Spillway lighting
t—Treaty with Mexico

³ San Luis Unit costs to be financed by the State of California.
⁴ Based on December 1963 Report of Financial Position.
⁵ Betterment of roads for authorized units.
⁶ Includes \$6,711,887 interest free investment in water.
⁷ Charged to Yuma Auxiliary project—nonreimbursable.

³ San Luis Unit costs to be financed by the State of California.
⁴ Based on December 1963 Report of Financial Position, modified by reimbursability of recreation and betterment of roads for authorized units.
⁵ Includes \$6,711,887 interest free investment in water users interest in power revenues.
⁶ Charged to Yuma Auxiliary project—nonreimbursable.

SCHEDULE III.—REPAYMENT OF REIMBURSABLE COSTS BY REPAYMENT CONTRACTS
JUNE 30, 1969

Project and State (Excludes Federal invest- ment under the loan program)	Reimbursable costs		Repayment from sources other than repayment contracts		Additional repayable obligations		Ultimate repayment contracts	Pending actions		Repayment contracts in effect	Matured value of contracts
	Irrigation	Municipal and industrial water and other ¹	Power revenues ²	(credits) Service contracts and other ³	Operating charges, interest, and penalties ⁴	Costs of associated projects and other ⁵		Contracts under negotiation (credit)	Excess of repayment over costs		
Total, U.S. Bureau of Reclamation—	\$5,691,110,051	\$1,476,756,003	\$2,919,511,894	\$2,365,225,761	\$16,627,534	\$49,654,456	\$1,949,440,399	\$362,569,486	\$13,272,765	\$1,600,143,668	\$240,843,905
Arbuckle, Okla.		7,241,107		10,224			7,230,983		226,117	7,457,000	0
Arnold, Oreg.	242,926						242,926			242,926	62,721
Avondale, Idaho	572,800		B 226,166				342,926			346,634	73,427
Baker, Oreg.	5,499,997		B 1,110,756	6,726			1,352,515			1,352,515	187,512
Balmorhea, Tex.	226,044				29,556		255,600			255,600	65,419
Belle Fourche, S. Dak.	3,576,607			23,125	676,578		4,230,060			4,230,060	1,979,302
Bitter Root, Mont.	1,794,350			6,705			1,787,645			1,787,645	603,073
Boise, Idaho—Oreg.	47,234,852	19,421	10,997,061	1,766,762	1,515,621		36,006,671	5,327,568		30,678,503	19,302,552
Bostwick Park, CRS, P. Colo.	4,800,000		C 3,849,220	91,780			859,000			859,000	
Boulder Canyon, Ariz.— Calif. Nev.											
All-American Canal System—	60,037,178	449,014		T 859,616 1,015,993	983,622		59,594,205			59,594,205	11,546,600
Hoover Dam and powerplant—		26,151,374	25,000,000	522,374			629,000	629,000			
Buffalo Rapids, Mont.	1,110,210			33,884			1,376,326			1,376,326	350,177
Buford-Trenton, N. Dak.	6,626			6,626						0	
Burnt River, Oreg.	601,026			1,291			599,735			599,735	449,807
Cachuma, Calif.	21,339,192	19,557,446		39,324,074			4,572,864			4,572,864	866,508
Canadian River, Tex.		84,873,751		136,561			84,737,190		83,250	84,820,440	
Carlsbad, N. Mex.	7,750,008			54,986	93,396		7,788,418			7,788,418	2,565,813
Central Arizona, Ariz.— N. Mex.	358,157,000	289,595,000	77,657,000	570,095,000			0			0	
Central Utah, CRS, P., Utah	199,322,382	85,957,053	59,662,318	1,718,313			142,811,000	10,549,000		132,262,000	91,433
Central Valley, Calif.— Corps of Engineers units*	1,215,039,000	447,565,000	91,168,000	1,270,241,254			301,194,746	54,253,917	199,124	247,139,953	13,177,341
Associated USCE projects*	111,500,000			111,500,000			0			0	
Chief Joseph Dam, Wash.	34,272,877			6,222,266		1,050,000	29,100,611	2,673,532		26,427,079	8,975,846
Gallatin, Colo.	34,400,833		B 21,224,026	7,067	484,300	a 126,860	13,780,900	3,420,000	21,100	10,382,000	52,574
Colorado-Big Thompson, Colo.	6,190,999		5,061,177	10,721			1,089,101			1,089,101	67,218
Colorado River, Tex.	101,563,810			245,339			28,915,569			28,915,569	6,213,929
Colorado River front work and levee system.		P 5,510,820	72,402,902	320			5,510,500			5,510,500	
Colorado River Storage, various		1,424,864		1,424,864			0			0	
La Barge and Pine River Extension— Additional authorized participating projects.	94,982,253	17,511,791	94,761,260	50,646,031		b 32,913,247	0			0	
	201,455		C 272,875	118,432		g 189,852	0			0	
Columbia Basin, Wash.	293,181,000	86,194,000	C 237,232,400	105,382,600			36,760,000	36,760,000		0	
Crescent Lake Dam, Oreg.	1,201,939,711	392,150	1,046,017,701	11,712,160			144,602,000	9,098,350		135,503,650	1,539,991
Crooked River, Oreg.	328,098			8,098			320,000			320,000	72,000
Dalton Gardens, Idaho	8,581,874		4,500,518	20,456			4,060,900	1,482,827		2,578,073	37,596
Deschutes, Oreg.	563,707		B 207,593				356,114			356,114	78,470
	11,488,459	P 67,939		381,706			11,199,568		1,204,849	12,404,417	1,578,608

SUMMARY

[illegible]

SCHEDULE III.—REPAYMENT OF REIMBURSABLE COSTS BY REPAYMENT CONTRACTS—Continued
JUNE 30, 1969

Project and State (Excludes Federal investment under the loan program)	Reimbursable costs		Repayment from sources other than repayment contracts		Additional repayable obligations		Ultimate repayment contracts	Pending actions		Repayment contracts in effect	Matured value of contracts
	Irrigation	Municipal and industrial water and other ¹	Power revenues ²	(credits) Service contracts and other ³	Operating charges, interest, and penalties	Costs of associated projects and other		Contracts under negotiation (credit)	Excess of repayment over costs		
Palisades, Idaho—Wyo.	26,834,316		21,887,344	T 100,072 T 1,020,675		f 4,453,100	8,279,325	406,720		7,872,605	2,095,534
Palmetto Bend, Tex.		27,855,500					27,855,500	27,855,500		0	395,250
Palo Verde, Ariz.—Calif.	1,701,198			26,198			1,675,000			1,675,000	
Paonia, CRS P, Colo.	7,553,487		C 5,144,086	182,553			2,320,000			2,320,000	
Parker-Davis, Ariz.—Calif.—Nev.	11,964,266	27,345,194	26,235,241	13,210,194		T 135,975	0			0	
Pine River, Colo.	1,520,457						1,250,000			1,250,000	754,220
Preston Bench, Idaho	450,300			274,672	4,215		450,300			450,300	63,324
Provo River, Utah	6,317,599	30,350,236		T 196,247			36,415,960		2,104	36,418,064	10,224,405
Rapid Valley, S. Dak.	11,596	500,000		114,537	58,909		500,000			500,000	280,292
Rathdrum Prairie, Idaho	1,256,514		B 346,822	1,288			908,404			908,404	231,152
Rio Grande, N. Mex.—Tex	17,621,291		4,231,009	1,409,678	425,629		12,406,233			12,406,233	9,393,670
Riverton, Wyo.	28,473,421	306,136	306,136	4,373,009	353,207		24,147,483	14,606,935	149,901	9,690,149	1,379,718
Rogue River Basin, Oreg	19,843,779		9,779,425	5,516			10,058,838			10,058,838	331,864
Saline River, Ariz.	46,022,935		998,411	1,313,686	771,850		44,482,688			44,482,688	22,324,602
San Angelo, Tex.	8,886,332	5,395,858		85,730			14,196,460			14,196,460	407,962
San Diego, Calif. (USN)*		30,090,216					30,090,216			30,090,216	16,108,098
San Juan-Chama, CRS P, Colo.—N. Mex.	44,772,000	27,203,000	C 36,180,108	654,892			35,140,000	4,705,000	3,649,000	34,084,000	6,470
San Luis Valley, Colo	2,323,129			1,619	9,645		2,331,155			2,331,155	
Sandpete, Utah	374,540			1,164			373,376			373,376	268,535
Santa Maria, Calif.	9,583,237			67,062			9,516,175			9,516,175	1,189,522
Savery-Pot Hook, CRS P, Colo.—Wyo.	15,302,000		C 12,908,034	393,966			2,000,000	2,000,000		247,000	119,800
Scofield, Utah	221,756	31,000		7,122	1,366		247,000			900,000	
Seedsakadee, CRS P, Wyo	41,385,630	908,161	C 33,543,056	550,735			8,200,000	7,300,000			
Shoshone, Wyo.—Mont	17,088,769	12,250	C 1,627,883	1,695,952	414,741		13,935,098		-65,042	15,870,056	4,422,867
Silt, CRS P, Colo	7,001,307		C 6,007,722	256,827			960,000		2,000,000	960,000	
Smith Fork, CRS P, Colo	4,400,094		C 3,205,370	33,585			1,025,000			1,025,000	41,000
Solano, Calif.	32,661,293	5,141,130		37,802,423			0			0	
Southern Nevada Water, Nev.		81,845,260		284,295			81,560,965	34,341,965		47,219,000	1,848
Spokane Valley, Wash	5,144,588	961,545	B 2,029,635	42,151	445,175	a 42,768	4,522,290			4,522,290	3,310,062
Strawberry Valley, Utah	3,502,325		16,309	237,876	100,379		3,348,519			3,348,519	
Sun River, Mont	9,940,943			103,875	235,746		10,072,814	3,230	364	10,069,948	3,467,988
Teton Basin, Lower Teton Division, Idaho	38,151,000		17,516,000				20,635,000	16,655,000		3,980,000	
The Dalles, Western Division, Oreg	6,818,841		B 4,319,376	65,955		a 116,490	2,550,000			2,550,000	30,816
Truckee Storage, Nev.—Calif.	992,186	P 19,846		355	9,926		1,021,603			1,021,603	671,943
Tualatin, Oreg	15,543,000	2,648,100	B 10,388,000	2,648,100			5,155,000	5,155,000		0	
Tucumcari, N. Mex	6,841,078			24,921	635,740		7,451,897			7,451,897	655,395
Umatilla, Oreg	3,015,805			1,551,316	217,514		1,682,003	364,692	1,179	1,318,400	685,702
Uncompahgre, Colo	7,882,856			139,724	822,419		8,565,551		82,729	8,648,280	2,098,797
Vale, Oreg	6,708,015			463,817	110,267		6,354,465		65,823	6,420,288	1,230,913
Ventura River, Calif	18,297,035	13,618,254		676,983			31,238,306			31,238,306	526,952
Vermelo, N. Mex	2,107,943						2,107,943			2,107,943	8,551
W. C. Austin, Okla	1,829,855	1,080,000		26,145	378,479		3,262,189			3,262,189	1,551,057
Wapinitia, Juniper Division, Oreg	504,666			579			504,087	42,043		546,130	109,226

Washita Basin, Okla	11,513,324	10,220,579	14,525		21,719,378	2,272,122	23,991,500	174,210
Washoe, Nevada—Calif	7,902,000	19,714,000	24,795,000		2,821,000		0	
			T					
Weber Basin, Utah	32,381,570	54,280,436	118,260	124,831	85,976,213	4,345,213	81,631,000	3,853,381
Weber River, Utah	33,712	2,494,925	45,911	5,897	2,684,870		2,684,870	2,684,870
Wichita, Cheney Division,								
Kana, Wash	5,986,343	59,524,838	242,108		5,744,235		5,744,235	247,560
	15,000		652,692	812,377	49,361,266	326,790	49,263,144	19,697,197
			845,066					
Yuma, Arizona—Calif	P 632,367		349,157	592,900	5,334,790	25,019	5,359,809	5,349,162
Yuma Auxiliary, Ariz			651,608	493	1,914,830	14,928	1,925,109	893,234
Grand total, U.S.								
Bureau of Recla-								
mation, U.S. Corps	7,756,327,995	1,515,894,050	2,865,381,044	16,627,534	2,008,631,216	365,243,018	1,656,660,963	265,927,039
of Engineers, etc		4,465,541,775		50,704,456				

*Nonbureau projects for which Bureau of Reclamation has been designated to handle repayment of indicated reimbursable costs. Amounts are included in grand total line only.

**Units requiring reauthorization are included in grand total line only. See schedule II.

1 Includes \$6,833,838 reimbursable commercial power allocation (schedule IV)—identified by "P".

2 Power revenues allocated to irrigation aid:

Regular projects	\$2,384,061,399
MRB—USCE and not authorized	1,546,029,881
Upper Colorado River Basin fund:	
Participating projects (C)	250,263,280
New authorizations	237,232,400
Total	4,417,586,960
Aid from BPA (B)	47,951,815
Total irrigation aid—schedule III	4,465,541,775
Available for potential UCRB projects	454,642,627
Total irrigation aid—schedule IV	4,872,229,587

³ See schedule V except for those costs which are transferred to associated projects for repayment—identified by "T" in both columns (\$5,437,942).

⁴ Other additional repayable obligations:

a—Bonneville Power Administration costs.

b—Surplus M&I revenues committed for participating projects.

c—Power revenues applied to repayment contract by lessee.

d—National Park Service costs.

e—Repayment plan under existing contract will require amendment to return existing indebtedness.

f—Fort Hall Indian project.

g—Deauthorized. Pine River Extension costs.

h—Includes Deschutes completed contract, \$67,939.

i—Repayment plan for water users not determined.

⁷ Work not scheduled.

SCHEDULE IV.—REPAYMENT OF REIMBURSABLE COSTS BY COMMERCIAL POWER REVENUES
JUNE 30, 1969

Project and State	ULTIMATE REPAYMENT DURING PAYOUT PERIOD ON CURRENT SCHEDULES						REVENUES TO JUNE 30, 1969				
	Reimbursable commercial power	Sources other than reclamation power (credit)	Other obligations repayable by power revenues			Surplus power revenues as scheduled (credits, not scheduled)	Total reimbursable by Reclamation power	Total	Application		
			Irrigation or other aid	Interest charges	Operating expenses				Construction repayment (see note 2)	Interest	Operation and maintenance expenses
Total, U. S. Bureau of Reclamation	\$2,818,401,472	\$20,773,522	\$2,871,557,079	\$1,811,697,226	\$4,076,801,978	\$431,669,353	\$11,126,017,880	\$1,644,539,109	\$595,770,019	\$156,720,901	\$592,048,189
Boise, Idaho—Oreg. (see note 1) . . .	5,373,401	483,645	10,997,061	492,420	19,204,037	52,451	35,635,725	12,368,527	4,835,071	492,420	7,041,036
Boulder Canyon, Hoover Dam and powerplant, Ariz.—New	147,440,005	347,248	25,000,000	145,744,563	248,561,969	42,390,744	524,011,545	287,505,211	39,268,723	108,387,412	139,849,076
Central Arizona, Ariz.—New Mex . . .	97,542,000		77,657,000	(not scheduled)		175,199,000	0				
Central Utah, Bonneville unit, Utah, CRS participating	48,366,000	181,318	59,662,318	(included in Colorado R. Storage)		107,847,000	0				
Central Valley, Calif Corps of Engineers units *	376,283,000	223,304	91,168,000	151,307,486	1,089,516,234	271,412,665	1,979,464,081	299,024,036	179,433,586	44,626,719	74,963,731
Associated USCE projects*	81,600,000						81,600,000				
	2,151,550	E 2,151,550					0				
Collbran, Colo	9,691,956	63,237	5,061,177	10,079,739	9,049,005	3,571,091	37,389,731	2,545,985	162,009	1,684,435	699,541
Colorado-Big Thompson, Colo . . .	61,161,308	494,613	72,402,902	31,278,171	67,739,410	51,568	232,138,746	65,821,241	25,251,927	23,429,768	17,139,546
Colorado River, Tex	5,510,820	C 5,510,820					0				
Colorado River Storage, various—Central Utah and Seckskadee	522,745,756	1,960,631	94,761,260								
Power . . .						(111,423,710)					
Other participating projects (III) . . .			250,263,280	337,851,018	829,454,707	-32,888,910	2,803,525,217	79,455,070	-1,015,571	40,854,128	39,616,513
Available for potential projects**			691,875,027								
Columbia Basin, Wash. (see note 1)	649,650,665	194,742	1,046,017,701	541,854,124	623,329,533	-456,671,521	2,403,985,760	287,592,669	157,241,368	64,539,398	65,808,903
Crooked River, Oreg Deschutes, Oreg . . .	67,939	E 4,061,657 C 67,939	4,500,518				438,861	253,426	253,426		
Dixie, Utah . . .			34,079,000	(not scheduled)		-34,079,000	0				
Falcon, Tex., USDS—IBWC*	7,136,304			9,513,697	9,632,052	-61,164	26,220,889	4,145,225	-787,490	2,734,796	2,197,919
Fryingpan-Arkansas, Colo . . .	37,983,000	100,900	35,644,000	17,923,101	42,442,200	9,558,227	143,449,628				
Grand Valley, Colo Hungry Horse, Mont. (see note 1) . . .	213,669	213,669	609,113		468,489	701,582	1,779,184	3(831,589)	[574,568]		[257,021]
Kendrick, Wyo . . .	77,476,279	34,187		38,644,238	31,319,777	28,998	147,435,105	92,819,993	54,935,275	30,638,537	7,246,181
	17,751,541	93,109	14,765,065	7,888,926	27,857,302	-899,776	67,269,949	25,044,531	10,169,586	6,140,853	8,734,092
Minidoka, Idaho—Wyo. (see note 1) . . .	4,754,214	1,790,073	4,143,110	862,015	20,167,068	-1,408,884	27,157,783	19,845,492	34,143,110 1,854,482 (430,333)	296,916	13,120,651

SUMMARY

XXXIII

Missouri River Basin, various:										
Bureau of Reclamation units.	404,521,380	605,900	713,597,410	420,033,660	735,537,741	33,394,358	2,273,084,291	252,689,882	50,044,674	79,614,015
Requiring reauthorization**	246,765,613		1,238,804,481	256,229,000	448,690,000	33,394,358	2,223,883,452			
Corps of Engineers units*	584,190,400		307,225,400	606,594,000	1,062,230,000		2,560,239,800	162,835,973	-10,356,952	146,335,079
Transfer to integrated projects								81,705,854		
Subtotal—MRB	1,235,477,393	605,900	2,259,627,291	1,282,856,660	2,246,457,741	33,394,358	7,057,207,543	497,231,709	39,687,722	225,949,094
Newlands, Nev.—Calif.	341,751	C 341,751					0			
North Platte, Nebr.—Wyo.	6,989,678	16,762								
Ogden River, Utah.	261,115	C 261,115								
Pacific NW-SW Intertie, various.	169,468,847	350,343		N A			169,118,504	0	-313,128	313,128
Palisades, Idaho—Wyo. (see note 1)	13,179,247	2,531,203	21,887,344	3,981,588	40,007,837	-1,005,962	75,518,851	19,549,795	9,700,775	2,277,752
Parker-Davis, Ariz.—Calif.—Nev.	112,362,821	113,261	26,235,241	68,739,253	197,373,156	32,437,569	437,034,779	143,432,674	43,965,428	44,261,070
Provo River, Utah.	1,070,383			999,808	1,809,109	171,277	4,050,577	826,699	131,968	361,415
Rio Grande, N. Mex.	10,496,254	58,767	4,231,009	20,489,006	35,393,925	-9,446,430	61,104,997	14,840,390	-1,190,336	5,900,072
Riverton, Wyo.	513,169		306,136	2,932	4,130,250	142,265	5,094,752	3,221,961	682,417	2,932
Rogue River Basin, Ore.	9,250,319	2,389	9,779,425	5,243,619	3,905,752	344,840	28,521,566	3,619,327	1,460,843	411,690
Salt River, Ariz.			998,411		734,102		1,732,513	1,732,513	998,411	734,102
Seedakadee, CRS participating, Wyo.	3,588,186	11,476		(included in Colorado R. Storage)		-3,576,710	0	176,297	-10,587	93,710
Shoshone, Wyo.—Mont.	4,322,851	7,250	1,627,883	269,630	10,890,733	-229,175	16,874,672	9,592,845	4,817,914	269,630
Strawberry Valley, Utah.			16,309		190,489		206,798	206,798	16,309	
Teton Basin, Lower Teton Division, Idaho.	6,960,000		17,516,000	N A	N A		24,476,000			
Truckee Storage, Nev.—Calif.	19,846	C 19,846					0			
Washoe, Nev.—Calif.	7,804,000			4,672,000	2,905,000	2,013,000	13,368,000			
Yakima, Wash. (see note 1).	4,610,705		10,338,257	3,339,929	19,572,983	-663,210	37,198,664	5,756,600	2,198,402	1,102,925
Yuma, Ariz.—Calif.	632,367	C 632,367	211,576		967,792	4734,363	1,913,731	1,913,731	211,576	
Grand Total, U. S. Bureau of Reclamation, U. S. Corps of Engineers, etc.	3,740,248,339	22,925,072	4,872,229,587	2,684,033,923	5,597,354,030	-398,336,159	16,472,604,648	1,811,520,307	584,625,577	605,790,776
										621,103,954

Notes.—1. The Bonneville Power Administration has been assigned power marketing responsibility for these projects, including the Reclamation transmission facilities. Costs and repayment of Bureau facilities are included.

2. The reserve for depreciation has been deducted from operating expenses and included as construction repayment. Credits represent amounts by which revenues to date have been exceeded by cost and interest requirements.

3. Reallocations subsequent to the 1968 Average Rate and Repayment Studies are reflected in "Surplus power revenues."

*Nonbureau projects for which Bureau of Reclamation has been designated to handle repayment of indicated reimbursable costs. Amounts are included in final line only.

**Units requiring reauthorization are included in final line only. See schedule II.

1 Sources other than currently scheduled Reclamation project power revenues are shown on schedule

V (\$9,878,027) except those coded as follows:

C Repayment contracts (schedule III), \$6,833,338.

E—Power revenues of other associated projects, \$6,213,207.

2 Total USBR excludes \$1,238,804,481 scheduled for Missouri River Basin units requiring reauthorization and \$454,642,027 of the \$691,875,027 available for potential Colorado River Storage participating projects, which are not authorized.

3 Power revenues are applied to irrigation repayment contract.

4 Power profits are applied to water user obligations.

5 Power revenues (\$417,840) applied in determining water users' contract obligations; and power allocation (\$1,678,783) excluded from power repayment schedule.

6 Includes reserves and distribution to project and land owners.

SCHEDULE V.—REPAYMENT OF REIMBURSABLE COSTS FROM SPECIAL SOURCES
JUNE 30, 1969

Project and State	ULTIMATE REPAYMENT				REPAYMENT TO JUNE 30, 1969						Total
	Total	Contributions and advances	Water rental and service contracts		Colorado River development fund	Miscellaneous receipts and depreciation	Contributions and advances	Water rental and service	Colorado River development fund	Miscellaneous receipts and depreciation	
Total, U. S. Bureau of Reclamation	\$2,369,665,846	\$216,191,187	\$1,005,055,714	\$790,114,894	\$8,722,522	\$349,581,529	\$195,907,601	\$20,078,073	\$1,394,722	\$31,400,123	\$251,780,519
Arbuckle, Okla.	10,224	10,224					10,224				10,224
Baker, Oreg.	6,726	6,726					6,726				6,726
Belle Fourche, S. Dak.	23,125	5,325				17,800	5,325				5,325
Bitter Root, Mont.	6,705	6,705					6,705				6,705
Boise, Idaho—Oreg.	2,250,407	77,009	1,014,150		75,780	1,159,248	77,009	1,014,150		710,420	1,801,579
Bostwick Park, CRS, P. Colo.	91,780	16,000					16,000		75,780		91,780
Boulder Canyon, Ariz.—Calif.—Nev.											
All-American Canal System—Hoover Dam and power-plant	1,015,993	45,500				970,493	45,500			699,383	744,883
Buffalo Rapids, Mont.	869,622	869,622					374,248				374,248
Buford-Trenton, N. Dak.	33,884	28,605				5,279	28,605			5,279	33,884
Burnt River, Oreg.	6,626	1,800	102			4,724	1,800	102		4,724	6,626
Cachuma, Calif.	39,324,074	1,291	20,375,531	18,845,436		2,133	100,974	4,357,043		2,133	1,291
Canadian River, Tex.	136,561	136,561					136,561				136,561
Carlsbad, N. Mex.	51,986	13,729				41,257	13,729			41,257	54,986
Central Arizona, Ariz.—N. Mex.	570,095,000		60,438,000	287,072,000	1,631,000	220,954,000		18,664	1,067,730	35,328	1,239,764
Central Utah, CRS P. Utah	1,899,631	116,042		678,531	1,067,730	1,821,331	116,042				
Central Valley, Calif.	1,270,461,558	181,899,059	793,406,295	233,522,873		59,815,000	167,662,774	8,179,709		1,811,094	177,653,577
Corps of Engineers units*	111,500,000		111,500,000				3,500	6,218,766			6,222,266
Associated USCE projects*	6,222,266	3,500				50	6,194	823		50	7,067
Chief Joseph Dam, Wash.	7,067	6,194					276		103,682		103,958
Collbran, Colo.	103,958	578,400	83,507		103,682	78,045	578,400	83,507		78,045	739,952
Colorado-Big Thompson, Colo.	739,952					320				320	320
Colorado River front work and levee system	1,424,864	1,424,864									1,424,864
Colorado River Storage, various.	52,606,662	3,197,960		48,432,000	976,702		2,649,478	47,798	976,702		3,673,978
La Barge and Pine River extension	118,432				118,432				118,432		118,432
Additional authorized projects	105,382,600			85,721,700	2,457,300	17,203,600	362,864	44,038		10,234,589	10,641,491
Columbia Basin, Wash.	11,906,902		44,038			11,500,000					
Crocker Lake Dam, Oreg.	8,098					8,098					
Crocker Lake Dam, Oreg.	20,456	15,075	1,908			3,473	15,075	1,908		3,473	20,456
Deerhous, Oreg.	381,706	274,929				106,777	274,929			106,777	381,706
Disco, Utah	12,945,000	5,500	5,400,000		239,500	7,300,000	5,500				5,500
Eden, W. Va.	64,427	1,260			17,988	45,179	1,260		17,988		18,927
Flery County, CRS, P. Utah	18,927	1,436			17,491		1,436		22,396		22,396
Florida, CRS P. Colo.	22,396				22,396						175
Fort Sumner, N. Mex.	1,153	175				978	175			2,500	2,500
Frutiger Dam, Colo.	2,500				167,145	2,500			167,145		181,145
Frutland Mesa, CRS P. Colo.	592,263	14,000	54,766,000	22,516,000		413,118	14,000				100,900
Gila, Ariz.	77,382,000	100,900	90,037			179,387	100,900	81,735		124,038	446,435
Grand Valley, Colo.	516,086	240,662				74,251	240,662			74,251	285,551
Grand Valley, Colo.	285,551	211,300				74,251	211,300		7,697	350	8,047
Hammond, CRS/P. N. Mex.	8,517				7,697	28,517				28,517	28,517
Humboldt, Nev.	28,517					94,159				70,854	70,854
Hungry Horse, Mont.	94,159							20,340			27,494
Huntley, Mont.	28,087	20,933					7,154			315	12,200
Hyrum, Utah	11,885	11,885					11,885				150,830
Kendrick, Wyo.	150,830	94,093				56,737	94,093			56,737	11,807,888
Klamath, Calif.—Oreg.	397,878	397,878	3460,960			13,245,683	397,878		11,410,010		160
Lewis and Clark, Idaho	160	160				96,000	160				46,453
Little Wood River, Idaho	96,000										
Lower Rio Grande, Tex.	46,453	46,453					46,453				

SUMMARY

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Lower Yellowstone, Mont.—									
N. Dak.	45,031	25,513	60,101	19,518	25,513	60,101	19,518	25,513	45,031
Lyman, CRS/P, Wyo.—Utah.	63,354	3,253			3,253			3,253	63,354
Mancos, Colo.	6,779	4,115			4,115			4,115	6,779
Michael Flat, Idaho.	274,744	12,341			12,341			12,341	274,744
Middle Rio Grande, N. Mex.	1,278,355	26,331			26,331			26,331	1,278,355
Milk River, Mont.	389,529	7,370			7,370			7,370	389,529
Minidoka, Idaho—Wyo.	3,113,850	354,086			354,086			354,086	3,113,850
Mirage Flats, Nebr.	5,831								5,831
Missouri River Basin:									
Bureau of Reclamation units.	100,414,055	45,054,150			45,054,150			45,054,150	100,414,055
Requiring reauthorization**.	381,734,440	180,758,717			180,758,717			180,758,717	381,734,440
Moon Lake, Utah.	8,093								8,093
Newlands, Nev.—Calif.	194,143	1,453			1,453			1,453	194,143
Newton, Utah.	231								231
Norman, Okla.	6,285								6,285
North Platte, Neb.—Wyo.	243,986	17,149			17,149			17,149	243,986
Ogden River, Utah.	95,199	13,417			13,417			13,417	95,199
Okanogan, Wash.	58,756	47,766			47,766			47,766	58,756
Orland, Calif.	25,222	1,932			1,932			1,932	25,222
Owyhee, Oreg.—Idaho	320,455	23,108			23,108			23,108	320,455
Pacific N.W.-SW Intertie,									
various.	350,343	350,343			350,343			350,343	350,343
Palisades, Idaho—Wyo.	2,631,275	3,462			3,462			3,462	2,631,275
Palo Verde, Ariz.—Calif.	26,198								26,198
Panama, CRS/P, Colo.	182,553	98,602			98,602			98,602	182,553
Parker-Davis, Ariz.—Calif.									
Nebr.	13,323,455								13,323,455
Pine River, Colo.	274,672	5,463			5,463			5,463	274,672
Provo River, Utah.	114,537	75,537			75,537			75,537	114,537
Rapid Valley, S. Dak.	11,596								11,596
Rathdrum Prairie, Idaho.	1,288	1,274			1,274			1,274	1,288
Rio Grande, N. Mex.—Tex.	1,468,445	1,163,877			1,163,877			1,163,877	1,468,445
Riverton, Wyo.	4,373,009	62,976			62,976			62,976	4,373,009
Rogue River Basin, Oreg.	7,905	5,516			5,516			5,516	7,905
Salt River, Ariz.	1,313,686	1,193,379			1,193,379			1,193,379	1,313,686
San Angelo, Tex.	85,730	62,604			62,604			62,604	85,730
San Juan-Chama, CRS/P,									
Colo.—N. Mex.	654,892								654,892
San Luis Valley, Colo.	1,619	242			242			242	1,619
Sanpete, Utah.	1,164	1,164			1,164			1,164	1,164
Santa Maria, Calif.	67,062	67,062			67,062			67,062	67,062
Savery-Pot Hook, CRS/P,									
Colo.—Wyo.	393,966	2,400			2,400			2,400	393,966
Scofield, Utah.	7,122								7,122
Seeds-kader, CRS/P, Wyo.	562,211	1,107			1,107			1,107	562,211
Shoshone, Wyo.—Mont.	264,077	151,683			151,683			151,683	264,077
Silt, CRS/P, Colo.	33,585	13,775			13,775			13,775	33,585
Smith Fork, CRS/P, Colo.	71,606	16,670			16,670			16,670	71,606
Solano, Calif.	37,802,423	25,180,962			25,180,962			25,180,962	37,802,423
Southern Nevada Water, Nev.	284,295	6,900			6,900			6,900	284,295
Spokane Valley, Wash.	42,151	42,151			42,151			42,151	42,151
Strawberry Valley, Utah.	237,876	4,179			4,179			4,179	237,876
Sun River, Mont.	103,875								103,875
The Dalles, Western Division,									
Oreg.	65,955								65,955
Truckee Storage, Nev.—Calif.	355								355
Tualatin, Oreg.	2,648,100								2,648,100
Tucumcari, N. Mex.	24,921	17,043			17,043			17,043	24,921
Umattila, Oreg.	1,551,316	5,642			5,642			5,642	1,551,316
Uncompahgre, Colo.	139,724	26,324			26,324			26,324	139,724
Vale, Oreg.	463,817	6,089			6,089			6,089	463,817
Ventura River, Calif.	676,983	676,983			676,983			676,983	676,983
W. C. Austin, Okla.	26,145	16,647			16,647			16,647	26,145
Wapinitia, Oreg.	579								579
Washita Basin, Okla.	14,525								14,525
Washoe, Nev.	24,795,000	974,000			974,000			974,000	24,795,000
Weber Basin, Calif.	692,364								692,364
Weber River, Utah.	45,911	44,757			44,757			44,757	45,911
Wichita, Cheney Division, Kans.	242,108	55,000			55,000			55,000	242,108
Yakima, Wash.	652,692	140,060			140,060			140,060	652,692
Yuma, Ariz.—Calif.	349,157	19,786			19,786			19,786	349,157
Yuma Auxiliary, Ariz.	651,608	26,852			26,852			26,852	651,608
Grand Total, U. S.	2,869,122,552	1,303,533,197			1,303,533,197			1,303,533,197	2,869,122,552
Bureau of Reclamation,		217,229,347			217,229,347			217,229,347	
U. S. Corps of Engineers,									
etc.									
		8,722,522			8,722,522			8,722,522	
		349,825,592			349,825,592			349,825,592	
		196,945,761			196,945,761			196,945,761	
		26,296,839			26,296,839			26,296,839	
		4,394,722			4,394,722			4,394,722	
		31,644,186			31,644,186			31,644,186	
		259,281,508			259,281,508			259,281,508	

Note.—CRS/P.—Colorado River Storage Participating.
 *Nonbureau projects for which Bureau of Reclamation has been designated to handle repayment of indicated reimbursable costs. Amounts are included in grand total line only.
 **Units requiring reauthorization are included in grand total line only. Repayment plan has not been developed. Service contracts allocated to irrigation and M&W water in same proportion as developed.
 †Bureau of Indian Affairs.
 ‡Deferred use.
 §Loan program facility included in project costs.
 authorized units. See schedule II.
 † Includes State share of San Luis unit (\$172,132,000) and Auburn-Folsom South unit (\$9,537,000).
 ‡ Deferred use.
 § Loan program facility included in project costs.
 † Bureau of Indian Affairs.

SCHEDULE VI.—NONREIMBURSABLE COSTS AUTHORIZED BY BASIC LEGISLATION

Project	Amount	Purpose	Authorizing act of Congress
Arbuckle -----	\$299,953	Flood control -----	Aug. 24, 1962.
	1,808,838	Fish and wildlife -----	Do.
	455,442	Recreation -----	Do.
Baker, Upper Division -----	909,310	Flood control -----	Sept. 27, 1962.
	956,873	Fish and wildlife -----	Do.
	132,971	Recreation -----	Do.
	535,400	Utilization of public roads -----	Oct. 23, 1962.
Boise -----	14,937,080	Flood control -----	Aug. 24, 1954. ¹
Bostwick Park -----	800,000	Fish and wildlife -----	Apr. 11, 1956 and Sept. 2, 1964.
	900,000	Recreation -----	Do.
Boulder Canyon:			
All-American Canal System -----	4,586,442	Flood control -----	(¹).
Hoover Dam, Boulder City -----	3,635,658	Nonproject costs -----	June 29, 1948.
Buford-Trenton -----	437,435	Flood control -----	June 21, 1957.
	110,614	Corps of Engineers -----	June 21, 1957.
Cachuma -----	13,788	Recreation investigation -----	Oct. 12, 1949.
Canadian River -----	2,876,138	Flood control -----	Dec. 29, 1950.
	2,973,111	Fish and wildlife -----	Do.
	1,100,000	Recreation -----	Aug. 31, 1964.
Carlsbad -----	1,007,612	Flood control -----	July 1, 1954.
	24,375	Health and safety facilities -----	Sept. 10, 1959.
Central Arizona -----	10,964,000	Flood control -----	Sept. 30, 1968.
	28,728,000	Fish and wildlife -----	Do.
	4,306,000	Recreation -----	Do.
	42,450,000	Water quality -----	Do.
Central Utah, Bonneville Unit -----	3,474,000	Flood control -----	Apr. 11, 1956.
	14,366,000	Fish and wildlife -----	Do.
	1,030,000	Utilization of public roads -----	Oct. 23, 1962.
Central Utah, Jensen Unit -----	293,000	Flood control -----	Apr. 11, 1956.
	628,000	Fish and wildlife -----	Do.
	273,000	Utilization of public roads -----	Oct. 23, 1962.
Central Utah, Upalco Unit -----	247,000	Flood control -----	Apr. 11, 1956.
	5,876,000	Fish and wildlife -----	Do.
	185,000	Utilization of public roads -----	Oct. 23, 1962.
Central Utah, Vernal Unit -----	188,000	Fish and wildlife -----	Apr. 11, 1956.
Central Valley -----	53,432,000	Fish and wildlife -----	Aug. 12, 1955 and June 5, 1960.
	101,214,000	Flood control and navigation -----	Aug. 26, 1937. ¹
	19,924,000	Highway relocation -----	Oct. 23, 1962.
	39,822,000	Recreation -----	Aug. 12, 1955, June 3, 1960, and Sept. 2, 1965.
Chief Joseph Dam:			
Foster Creek Division -----	17,500	Fish and wildlife -----	July 27, 1954. ²
Greater Wenatchee Division -----	18,204	do -----	May 5, 1958. ²
Oroville-Tonasket Unit -----	140,000	do -----	Oct. 9, 1962. ²
Whitestone Coulee Unit -----	202,000	Recreation -----	Sept. 18, 1964.
Collbran -----	728,036	Fish and wildlife -----	July 3, 1952. ²
	41,609	Road construction -----	Forest Service funds. ³
Colorado-Big Thompson -----	15,267	Fish and wildlife -----	(²).
Colorado River, Tex. -----	13,487,258	Navigation and flood control -----	(⁴).
	4,956,221	Power -----	Aug. 26, 1937 and May 10, 1939.
Colorado River front work and levee system.	⁵ 57,162,520	Navigation and flood control -----	June 28, 1946 and Sept. 2, 1950. ¹
Colorado River Storage -----	3,714,000	Flood control -----	Apr. 11, 1956. ¹
	21,528,469	Fish and wildlife -----	Do. ²
	600,000	Highways and roads -----	July 31, 1956, BPA funds.
	184,000	Highways and roads, Curecanti -----	Oct. 23, 1962.
	22,771	Highways and roads, Navajo -----	NPS funds. ³
	42,378	Highways and roads, Flaming Gorge.	NPS funds. ³
	236,837	Airport extension, Glen Canyon -----	NPS and FAA funds. ³
Participating projects (not listed separately):			
Animas-La Plata -----	681,000	Recreation -----	Apr. 11, 1956 and Sept. 30, 1968.
Dallas Creek -----	1,251,000	do -----	Do.
Dolores -----	680,000	do -----	Do.
San Miguel -----	466,000	do -----	Do.
Animas-La Plata -----	1,082,000	Fish and wildlife -----	Do.
Dallas Creek -----	4,085,000	do -----	Do.
Dolores -----	1,746,000	do -----	Do.
San Miguel -----	3,873,000	do -----	Do.
West Divide -----	1,319,000	do -----	Do.

See footnotes at end of table.

SCHEDULE VI.—NONREIMBURSABLE COSTS AUTHORIZED BY BASIC LEGISLATION—(Continued)

Project	Amount	Purpose	Authorizing act of Congress
Dallas Creek -----	217,000	Flood control -----	April 11, 1956 and Sept. 30, 1968.
Dolores -----	495,000	do -----	Do.
San Miguel -----	1,080,000	do -----	Do.
West Divide -----	280,000	do -----	Do.
Animas-La Plata -----	582,000	Utilization of public roads -----	Oct. 23, 1962.
Columbia Basin -----	1,000,000	Navigation -----	(¹).
	46,588,729	Flood control, Grand Coulee -----	June 25, 1948. ¹
	4,200,988	Town of Coulee Dam -----	Aug. 30, 1957.
	176,757	Spillway lighting -----	July 2, 1956.
Crooked River -----	1,674,271	Flood control -----	(¹).
	480,400	Fish and wildlife -----	Aug. 6, 1956. ²
	23,258	Recreation -----	Do.
Dixie -----	669,000	Flood control -----	(¹).
	3,007,000	Fish and wildlife -----	Sept. 2, 1964, and Sept. 30, 1968.
	4,357,000	Recreation -----	Do.
	130,000	Utilization of public roads -----	Oct. 23, 1962.
Emery County -----	2,300,000	Fish and wildlife -----	Apr. 11, 1956.
	468,057	Highways and roads -----	Oct. 23, 1962.
Florida -----	181,000	Flood control -----	Apr. 11, 1956.
	604,000	Fish and wildlife -----	Apr. 11, 1956.
Fruitland Mesa -----	274,000	do -----	Apr. 11, 1956, and Sept. 2, 1964.
	1,909,000	Recreation -----	Do.
Fryingpan-Arkansas -----	19,093,000	Flood control -----	(¹).
	46,130,000	Fish and wildlife -----	Aug. 16, 1962, sec. 4.
	8,432,000	Recreation -----	Do.
	1,375,000	Utilization of public roads -----	Oct. 23, 1962.
Gila -----	5,915,268	Flood control -----	Nov. 20, 1967.
Grants Pass -----	210,779	Fish and wildlife -----	July 2, 1956.
Hammond -----	150,000	do -----	Apr. 11, 1956.
Hungry Horse -----	24,603,334	Flood control -----	June 5, 1944. ¹
Little Wood River -----	323,673	do -----	Aug. 6, 1956.
	226,747	Fish and wildlife -----	Do. ²
	32,021	Recreation -----	Do.
Lyman -----	2,013,058	Fish and wildlife -----	Apr. 11, 1956.
Mann Creek -----	18,487	do -----	Aug. 16, 1962.
	61,500	Utilization of public roads -----	Oct. 23, 1962.
	114,769	Recreation -----	Oct. 9, 1962.
McMillan Delta -----	277,178	Salinity alleviation -----	Feb. 20, 1958.
Middle Rio Grande -----	15,929,001	River channelization -----	June 30, 1948, and May 17, 1950.
	189,117	Water data program -----	Do.
	201,760	Recreation -----	Do.
Milk River -----	26,000	Malta street improvement -----	Aug. 30, 1964.
Minidoka -----	27,978	Recreation (Walcott Park) -----	Civilian Conservation Corps funds. ³
Missouri River Basin -----	189,451,490	Navigation and flood control -----	Dec. 22, 1944, and July 24, 1946.
	59,967,215	Fish and wildlife -----	Do.
	18,622,590	Recreation -----	Do.
	42,570,478	Investigations -----	Do.
	1,000,000	Municipal water (military) -----	July 31, 1953.
	4,963,500	Utilization of public roads -----	Oct. 23, 1962.
Mountain Park -----	2,713,000	Flood control -----	Sept. 21, 1968. ¹
	1,395,500	Fish and wildlife -----	Do. ²
	610,000	Recreation -----	Do.
Norman -----	2,999,155	Flood control -----	June 27, 1960.
	2,603,211	Fish and wildlife -----	Do.
	494,979	Recreation -----	Do.
	950,000	Road relocation -----	Oct. 23, 1962.
Palisades -----	22,456,000	Flood control -----	Sept. 30, 1950.
	144,415	Recreation -----	Do.
Palmetto Bend -----	2,926,000	Fish and wildlife -----	Oct. 12, 1968.
	7,225,500	Recreation -----	Do.
Palo Verde -----	885,791	Flood control -----	Aug. 31, 1954.
Paonia -----	171,247	do -----	Apr. 11, 1956.
	271,632	Fish and wildlife -----	Do.
Parker-Davis -----	872,395	Highway construction -----	July 29, 1946.
	70,079	Power -----	June 28, 1946.
	163,562	School facilities -----	Sept. 23, 1950.
Pine River -----	1,797,295	Flood control -----	May 10, 1939; June 18, 1940; and Oct. 9, 1940.

See footnotes at end of table.

SCHEDULE VI.—NONREIMBURSABLE COSTS AUTHORIZED BY BASIC LEGISLATION—(Continued)

Project	Amount	Purpose	Authorizing act of Congress
Provo River -----	42,850	Municipal and industrial water --	Civilian Conservation Corps funds. ³
Rio Grande -----	1,519,650	Flood control -----	June 16, 1933, and June 19, 1934.
	1,000,000	Servicing Mexican Treaty -----	Mar. 4, 1907.
	608,311	Recreation -----	July 25, 1962.
Rogue River Basin -----	576,981	Flood control -----	Aug. 20, 1954. ¹
	137,273	Fish and wildlife -----	Aug. 20, 1954. ²
	165,898	Recreation -----	Aug. 20, 1954.
San Angelo -----	8,246,049	Flood control -----	Aug. 16, 1957.
	2,978,548	Fish and wildlife -----	Do.
	68,472	Recreation -----	Do.
San Juan-Chama -----	5,565,000	Fish and wildlife -----	June 13, 1962. ²
	608,000	Road relocation -----	Oct. 23, 1962.
San Luis Valley -----	1,548,753	Flood control -----	(¹).
Santa Maria -----	2,066,982	do -----	Sept. 3, 1954. ¹
Savery Pot-Hook -----	52,000	Fish and wildlife -----	Apr. 11, 1956, and Sept. 2, 1964.
	52,000	Recreation -----	Do.
Scofield -----	393,000	Flood control -----	(¹).
Seedskaadee -----	1,570,000	Fish and wildlife -----	Apr. 11, 1956.
	201,881	Highway relocation -----	Oct. 23, 1962.
Silt -----	650,000	Fish and wildlife -----	Apr. 11, 1956.
	149,699	Utilization of public roads -----	Oct. 23, 1962.
Smith Fork -----	285,643	Fish and wildlife -----	Apr. 11, 1956.
Solano -----	1,132,000	Flood control -----	(¹).
	3,006	Recreation -----	Sept. 2, 1958.
Southern Nevada Water -----	1,408,740	Military water supply -----	Oct. 22, 1965.
Teton Basin, Lower Teton Division	6,850,000	Flood control -----	(¹).
	73,000	Recreation -----	Sept. 7, 1966.
The Dalles, Western Division ----	26,071	Fish and wildlife -----	Sept. 13, 1960.
Tualatin -----	50,000	Flood control -----	Sept. 20, 1966. ¹
	1,862,000	Fish and wildlife -----	Do.
	662,000	Recreation -----	Do.
	290,000	Utilization of public roads -----	Do.
Vale -----	1,113,516	Flood control -----	Sept. 9, 1959.
	509,170	Fish and wildlife -----	Do.
	105,262	Recreation -----	Do.
Ventura River -----	100,000	do -----	Mar. 1, 1956.
Vermejo -----	55,000	Flood control -----	Sept. 27, 1950.
	198,000	Fish and wildlife -----	Do. ²
W. C. Austin -----	1,130,000	Flood control -----	June 28, 1938, and July 12, 1943.
Wapinitia, Juniper Division -----	34,330	Recreation -----	June 4, 1956.
Washita Basin -----	15,417,000	Flood control -----	Feb. 25, 1956. ¹
	1,135,176	Fish and wildlife -----	Do. ²
	638,995	Recreation -----	Do.
	193,323	Water supply Air Force Base -----	Sept. 2, 1958.
Washoe -----	15,091,000	Flood control -----	Aug. 1, 1956, and Aug. 21, 1958.
	9,626,000	Fish and wildlife -----	Aug. 1, 1956, and Aug. 21, 1958.
	1,152,000	Recreation -----	Aug. 1, 1956.
Weber Basin -----	6,304,000	Flood control -----	Aug. 29, 1949. ¹
	5,893,000	Fish and wildlife -----	Do. ²
	5,706,000	Recreation -----	Aug. 29, 1949.
	582,163	Utilization of public roads -----	Oct. 23, 1962, and Aug. 30, 1964.
Wichita, Cheney Division -----	405,689	Recreation -----	Sept. 14, 1960.
	4,796,063	Flood control -----	Do. ¹
	3,590,082	Fish and wildlife -----	Do. ²
Yakima -----	1,137,418	do -----	June 12, 1948. ²
Total -----	1,161,311,268		

¹ The Reclamation Project Act of Aug. 4, 1939 (53 Stat. 1187) provided in sec. 9(b) that charges allocated to navigation and flood control would be non-reimbursable.

² The amendment of Aug. 14, 1946, to the Wildlife, Fish and Game Act (60 Stat. 1080) provided that charges allocated to fish and wildlife would be non-reimbursable.

³ The Acting Attorney General's decision of Sept. 7, 1937, holds that a

Federal Reclamation project may be constructed, partly by the use of money from the Reclamation fund and partly with nonreimbursable funds from other sources.

⁴ Appropriation acts of May 9, 1938; May 10, 1939; June 18, 1940; Oct. 9, 1940; and Apr. 25, 1945, as authorized by the act of Aug. 26, 1937.

⁵ Includes costs of features constructed with operating funds.

**SCHEDULE VII.—IRRIGATION CONSTRUCTION COSTS
FOUND NONREIMBURSABLE OR LIMITED BY CONGRESS**

Project	Amount	Authorizing act
CHARGEOFFS BY CONGRESS		
Boulder Canyon, All-American Canal System -----	(\$804,631)	Jan. 28, 1956. See Gila.
Belle Fourche -----	1,479,300	May 25, 1926 and Oct. 27, 1949.
	30,836	Jan. 30, 1954.
Bitter Root -----	2,310	Jan. 30, 1954.
Boise -----	86,693	May 25, 1926.
Buford-Trenton (original) -----	221,424	May 26, 1926.
Carlsbad -----	374,884	May 25, 1926.
Frenchtown -----	1,050	Jan. 30, 1954.
Garden City -----	334,475	June 5, 1920.
Gila -----	1,888,379	July 30, 1947.
	4,117,200	Jan. 28, 1956.
	1,000,000	Nov. 20, 1967.
	1,200,000	Pending.
Grand Valley -----	1,944,143	May 25, 1926 and June 21, 1963.
	62,050	May 25, 1926.
Huntley -----	121,498	Aug. 30, 1961.
King Hill -----	1,877,732	May 25, 1926 and June 18, 1934.
Klamath -----	43,883	May 25, 1926.
	19,590	Aug. 2, 1951.
Lower Yellowstone ---	337,554	May 25, 1926.
	268,752	June 4, 1948.
Mancos -----	3,027,155	W.C.U. acts ⁴ and June 25, 1947.
Milk River -----	1,664,485	May 25, 1926.
	219,617	July 3, 1930.
	1,353,151	June 23, 1952.
Minidoka -----	23,668	May 25, 1926.
Missoula Valley -----	7,190	May 28, 1964.
Newlands -----	4,577,778	May 25, 1926.
North Platte -----	664,924	Do.
Okanogan -----	810,408	Do.
	165,275	May 25, 1928.
	2,347	Jan. 30, 1954.
Pine River -----	150,857	July 27, 1954.
Rio Grande -----	349,025	May 25, 1926.
Riverton -----	919,495	June 23, 1952.
	68,022	Aug. 13, 1952.
	-181,037	Aug. 4, 1939 (adjust.).
Shoshone -----	1,532,606	May 25, 1926.
	9,843	May 6, 1949.
	360,376	Oct. 27, 1949.
	29,047	Aug. 13, 1953.
	43,431	Jan. 30, 1954.
	405,647	July 14, 1954.
Sun River -----	191,910	May 25, 1926.
	297,752	July 31, 1953.
	5,464	June 8, 1962.
Umatilla -----	888,341	May 25, 1926.
	1,420,470	June 18, 1954.
Uncompahgre -----	2,846,860	May 25, 1926.
Williston -----	409,095	May 26, 1926.
Yakima -----	4,215	May 25, 1926.
	3,790	Jan. 30, 1954.
Yuma -----	383,738	Sept. 2, 1950.
Yuma-Yuma Auxiliary -----	940,633	Sept. 2, 1950.
Yuma Auxiliary -----	81,749	June 13, 1949.
Subtotal -----	39,089,080	

See footnotes at end of table.

**SCHEDULE VII.—IRRIGATION CONSTRUCTION COSTS
FOUND NONREIMBURSABLE OR LIMITED BY CONGRESS—
Continued**

Project	Amount	Authorizing act
SPECIAL ACTS		
Baker -----	51,574	Dec. 5, 1924.
Belle Fourche -----	14,731	Do.
Boulder Canyon, All-American Canal System -----	3,245,242	Aug. 31, 1951.
Buffalo Rapids -----	147	NIRA funds. ¹
Buford-Trenton Emergency Flood --	(See W.C.U.)	July 31, 1953.
Central Arizona -----	19,970,000	Sept. 30, 1968.
Deschutes -----	312,684	Aug. 10, 1954.
	231,287	Selective Service System. ¹
		Civilian Public Service. ¹
Gila -----	372,523	Air Force funds. ¹
Grand Valley -----	4,672	Dec. 5, 1924.
Hondo -----	339,377	Suspended—Abandoned plant. ²
	558	Dec. 5, 1924.
	74,054	Aug. 14, 1958.
Klamath -----	170,825	Air Force funds. ¹
	30,000	Bureau of Land Management funds. ¹
La Barge -----	20,653	Dec. 5, 1924.
Lower Yellowstone ---	3,298	Dec. 5, 1924.
Middle Rio Grande, Indian lands -----	2,174,927	June 30, 1948 and May 17, 1950.
Milk River -----	10,830	NIRA funds. ¹
Minidoka -----	50,000	NPS funds. ¹
	11,684	Aug. 13, 1953.
Missouri River Basin transitional development costs.	228,072	June 28, 1944 and Sept. 6, 1950.
Newlands -----	14,984	Dec. 5, 1924.
Palo Verde -----	2,325,197	Aug. 31, 1954.
Pecos River Basin water salvage.	2,520,000	Sept. 12, 1964.
Rio Grande, fence ---	55,989	National Industrial Recovery Act funds. ¹
	10,960	Justice Department funds. ¹
Riverton -----	106,058	Aug. 15, 1953, and March 10, 1964.
	116,501	Aug. 13, 1953. ³
	25,992	Dec. 5, 1924 and March 10, 1964.
Salt River -----	948,719	Indian Bureau funds. ¹
	382,097	Excess over payment required under contract H-307.
Shoshone -----	96,723	Aug. 13, 1953. ³
	4,302	Dec. 5, 1924.
	307	NIRA funds. ¹
Strawberry Valley ---	154	Dec. 5, 1924.
Sun River -----	5,849	NIRA funds. ¹
	4,429	Dec. 5, 1924.
	4,310	May 25, 1926.
	3,710	Fish and Wildlife funds. ¹
Truckee storage -----	81,296	May 29, 1941.
Tucumcari -----	2,500,000	Apr. 9, 1938 and PWA funds. ¹
	237,332	WPA funds. ¹
	7,512,852	April 9, 1938.

SUMMARY

**SCHEDULE VII.—IRRIGATION CONSTRUCTION COSTS
FOUND NONREIMBURSABLE OR LIMITED BY CONGRESS—
Continued**

Project	Amount	Authorizing act
Uncompahgre -----	\$9,937	Dec. 5, 1924.
	134,735	May 6, 1949.
	12,705	NIRA funds. ¹
Vermejo -----	464,802	Sept. 27, 1950.
W. C. Austin -----	8,269,152	July 12, 1943.
Subtotal -----	53,166,230	
WATER CONSERVATION PROJECT COSTS IN EXCESS OF REIMBURSABILITY		
Balmorhea -----	181,698	W.C.U. acts. ⁴
Buffalo Rapids -----	3,845,231	Do.
Buford-Trenton -----	686,518	Do.
Intake -----	47,313	Do.
Milk River -----	96,882	Do.
Mirage Flats -----	2,254,086	Do.
Missoula Valley -----	233,282	Do.
Newton -----	362,361	Do.
Rapid Valley -----	408,628	Do.
Rathdrum Prairie -----	173,951	Do.
Scofield -----	298,081	Do.
Subtotal -----	8,588,031	
CIVILIAN CONSERVATION CORPS		
Carlsbad -----	175,524	CCC funds. ¹
Deschutes -----	1,073,787	Do.
Grand Valley -----	291,300	Do.
Huntley -----	223,564	Do.
Milk River -----	26,586	Do.
Moon Lake -----	200,500	Do.
Ogden River -----	278,000	Do.
Provo River -----	15,485	Do.
Rio Grande -----	23,500	Do.
Sanpete -----	59,400	Do.
Subtotal -----	2,367,646	
Total -----	103,210,987	

¹ The Acting Attorney General's decision of Sept. 7, 1937, holds that a Federal Reclamation project may be constructed, partly by the use of money from the Reclamation fund and partly with nonreimbursable funds from other sources.

² Contract of Sept. 2, 1922, with Hondo Irrigation Association.

³ Farm Unit Exchange Act (67 Stat. 566). Includes expenses.

⁴ These projects fall under the two W.C.U. acts: (1) Water Conservation and Utilization Act (Wheeler-Case) of Aug. 11, 1939 (53 Stat. 1418), amended Oct. 14, 1940 (54 Stat. 1119), and July 16, 1943 (57 Stat. 568); and (2) Water Conservation and Utility (Great Plains) provision of the Interior Department Appropriation Act of 1940, May 10, 1939 (53 Stat. 685, 719).

GLOSSARY

Accretions.—Funds collected by agencies other than the Bureau of Reclamation, which are authorized by law to be deposited in the Reclamation Fund. Also called "Indirect Collections."

Advance Planning.—Detailed planning studies in connection with an authorized project involving collection of field data, land classification, foundation exploration, topographic mapping, aerial surveys, and other engineering and economic studies necessary for the preparation of definite plan reports and designs and specifications preparatory to start of construction.

Allocation of Costs.—The proportionate distribution of the cost of facilities of a project to the various purposes served such as irrigation, power, municipal water supply, and miscellaneous purposes as directed in section 9 of the Reclamation Project Act of 1939.

Allotments.—Funds made available for specific projects or activities from the appropriations made by Congress.

Appropriations (Gross).—An authorization by act of Congress to make payments out of the United States treasury for specified purposes within a prescribed amount.

Appropriations (Net).—The amount of gross appropriations less lapsed unexpended balances returned to the United States treasury.

Approved for Construction.—Authorized projects for which congressional action has provided construction funds.

Arable Land.—All lands delineated in the land classification which have sufficient potential payment capacity to warrant consideration for irrigation development—land which, in adequate units and if properly provided with the essential improvements of leveling, drainage, irrigation facilities and the like, would have a productive capacity, under sustained irrigation, sufficient (1) to meet all production expenses, including irrigation operation and maintenance costs and a reasonable return on the farm investment, (2) to repay a reasonable amount of the cost of project facilities,

and (3) to provide a satisfactory level of living for the farm family.

Area in Irrigation Rotation (Cultivation).—The annual acreage of irrigated land (classes 1 through 4 and class 5 land), plus the idle or fallow land (in the same classes), integrated into the irrigation rotation.

Authorization.—Under the Reclamation Project Act of August 4, 1939 (53 Stat. 1187), a finding of feasibility approved by the Secretary and sent to the President and the Congress is sufficient to authorize the construction of a Reclamation project. As a matter of policy, however, this means of authorization has not been used since 1952. Reclamation projects normally are authorized by specific acts of Congress and only after transmittal of the Secretary's feasibility reports to the Congress and searching hearings by congressional committees.

Carriage Facilities (Irrigation).—Usually, the main canals, tunnels, and pipelines which, starting from the primary source of water supply, convey water to the distribution facilities.

Chargeoffs Authorized by Congress.—Amounts authorized to be removed from the repayable cost of the project by specific acts of Congress or Secretarial determination pursuant to congressional authority.

Collections (Direct).—Collections for the Reclamation Fund are receipts derived from construction repayments, operation and maintenance repayments, power revenues, water rentals, and miscellaneous items.

Collections (Indirect).—See "Accretions."

Colorado River Dam Fund.—A special fund established by Congress under the Boulder Canyon Project Act of December 21, 1928 (as amended and modified by the Boulder Canyon Project Adjustment Act of July 19, 1940) to receive collections from and to finance operation and maintenance and replacements, payment of interest, repayment to U.S. treasury of advances, payments to Arizona and Nevada in lieu of taxes, transfers to the Colorado River Development Fund for studies and investigations.

Colorado River Development Fund.—A special fund

originally established under the Boulder Canyon Project Adjustment Act of July 19, 1940, by transfer of \$500,000 each year for studies and investigations to formulate a comprehensive plan for the utilization of waters of the Colorado River and for the investigation and construction of projects for such utilization; now used to reimburse the Upper Colorado River Basin Fund for expenditures due to deficiencies in generation at Hoover Dam (82 Stat. 898).

Contributions.—Donations or contributions in cash, services, or property from non-Government sources for investigations or construction to be performed by the Bureau of Reclamation.

Cost, Construction.—Construction costs consist of all costs, including labor, construction equipment, materials, supplies, installed equipment, land and land rights, investigations, engineering, and related services which contribute to the original value of the physical works constructed.

Cost of Plant, Property, and Equipment.—The term "cost" shall include the materials, supplies, labor, services, and other items consumed or employed in the construction and installation of plant, the cost of preliminary studies, plans, surveys, engineering, supervision, and general expenses, which contribute directly and immediately to plant without duplication of such costs. (Accounts 101-115).

Cost, Total Estimated.—The total cost of the feature, structure, or activity shall not reflect partial costs as represented by the amounts allocated to project purposes or functions, or as financed from different appropriations where other funds are involved. The estimate of cost shall be the total cost irrespective of conditions that might require the distribution of a part of that cost to other projects or offices or agencies. Calculations cover all foreseeable costs of a feature, structure, or activity, regardless of the source of the funds used for financing.

Development Period.—A development period is the time during which irrigators pay operation and maintenance costs only and are not required to make payments toward the construction cost covered by the repayment contract. Section 9 of the 1939 Reclamation Project Act authorizes the Secretary of the Interior to establish development periods of not to exceed 10 years for each irrigation block or water users organization. Development period begins with the initial delivery of water when distribution works are so far completed and water available to permit irrigation of substantially all lands in area.

Distribution Facilities (Irrigation).—Usually, a sys-

tem of small canals and laterals which, starting from the main canal, conveys water directly to the farm turnouts.

Features.—The major facilities of a project, such as dams, canals, powerplants, pumping plants, drains, and laterals.

Finding of Feasibility.—A document approved by the Secretary of the Interior and sent to the President and the Congress, in which the Secretary states that the proposed project has engineering and economic feasibility and that the estimated cost, less allocations to flood control, navigation, and fish and wildlife, will probably be returned to the United States.

Funded Charges.—(See "Operation and Maintenance Charges Funded" and "Interest and Penalties Funded.")

Interest and Penalties Funded.—Interest and penalties on delinquent charges due from water users which have been included in the construction repayment contracts.

Investment per Acre.—The irrigation investment per acre for irrigators is that part of the total project cost to be repaid by irrigators divided by the total acreage (both full and supplemental supply). The irrigation investment per acre for power or municipal and industrial water will be that portion of the amount to be repaid by power or municipal and industrial water which subsidizes the allocation for irrigation, divided by the total acreage.

Irrigable Acreage for Service.—The acreage classified as irrigable for which works have been constructed and water is available. This figure may change from year to year, generally upward, as project works are completed and service is made available to additional acreage. Upon completion of the project, the irrigable acreage for service will equal the irrigable land as presented in the repayment contract or most recent project authorization.

Irrigable Land.—The arable land for which a water supply is or can be made available and which is provided with or can be provided with irrigation, drainage, flood protection, and other facilities as necessary for sustained irrigation. The irrigable area comprises that portion of the arable area which is subject to farm use under ultimate development of the project or unit.

Irrigated Acreage.—The irrigable acreage actually irrigated in any one year. It will include irrigated crop land harvested, irrigated pasture, crop land planted but not harvested, and acreage in irrigated rotation used for soil-building crops.

Lower Colorado River Basin Development Fund.—

A special fund established by Congress in the Colorado River Basin Project Act of September 30, 1968 (82 Stat. 885), to receive advances from the General Fund for the purpose of carrying out the provision of the Central Arizona project portion (Title III) of the Act and to receive the revenues collected from the project as well as certain other revenues.

Matured Charges.—The portion of a repayment contract represented by the installments due, whether paid or not.

Operation and Maintenance Charges Funded.—Delinquent operation and maintenance charges due from water users which have been included in the construction repayment contracts.

Power Revenues.—The amounts of money received from sales of electric energy, electric property rentals, and any other income incidental thereto, *including inter-project sales.*

Productive Land.—The maximum acreage of the irrigable area subject to cropping which provides a basis for determination of water requirements, canal capacities, and payment capacities.

Project.—Any reclamation or irrigation project, including incidental features thereof, authorized by the Federal Reclamation laws, or constructed by the United States pursuant to said laws, or in connection with which there is a repayment contract executed by the United States pursuant to said laws, or any project constructed or operated and maintained by the Secretary through the Bureau of Reclamation for the reclamation of arid lands or other purposes. (53 Stat. 1187, 43 U.S.C. 485).

A project may consist of one major structure or of an entire river basin development. Major subdivisions of a project designed, constructed, and operated as integral developments, more or less self-contained, are termed "divisions;" a subdivision of a division is termed "unit."

Reclamation Fund.—A special fund established by Congress under the Reclamation Act of June 17, 1902, as amended, for the receipts from the sale of public lands and timber, proceeds from Mineral Leasing Act, and certain other revenues. Congress makes appropri-

tions from this fund for the investigation, construction, operation, and administration of Reclamation projects. Collections from water users for reimbursable costs of these projects are returned to the fund.

Rehabilitation and Betterment.—A program authorized by the act of October 7, 1949, providing for the maintenance, including replacements, of irrigation systems on projects governed by Federal Reclamation laws, which cannot be financed currently but which the organizations concerned obligated themselves to return in installments. The rehabilitation of features on previously non-Federal projects is also included in the "Rehabilitation and Betterment" program under specific authorizations.

Reimbursable.—The portion of construction or other costs which is not authorized by Congress to be non-reimbursable.

Repayment Contract.—A contract between a water users organization and the United States by which the organization obligates itself to repay its share of the reimbursable construction and other costs of a Reclamation project in installments determined in accordance with Reclamation law.

Revenue (Miscellaneous).—All revenues received from the operation of Reclamation projects not otherwise classified as repayments, power revenues, or water rentals.

Upper Colorado River Basin Fund.—A special fund established by Congress in the Colorado River Storage project authorization (act of April 11, 1956) to receive operating revenues from the projects and to finance construction and operation of all facilities.

Water Rentals.—Revenue received by projects from water users, usually during the construction or development period, which is applied against the reimbursable irrigation (or municipal water) allocation in determining the repayment obligation.

Water Service Contracts.—A type of contract, authorized by the Reclamation Project Act of August 4, 1939, whereby water is furnished for irrigation (sec. 9-e) or municipal or miscellaneous purposes (sec. 9-c) at rates to produce revenue sufficient to cover the applicable reimbursable charges.

PROJECT STATEMENTS

AMISTAD PROJECT

TEXAS

Amistad project is a part of the Rio Grande International Storage project of the International Boundary and Water Commission. The act of June 18, 1954 (68 Stat. 255), authorizing the Secretary of the Interior

to transmit and dispose of the electric power generated at Falcon Dam, was amended by the act of December 23, 1963 (77 Stat. 475), to include Amistad project.

ARBUCKLE PROJECT

OKLAHOMA

The construction of Arbuckle project in southcentral Oklahoma was authorized by Congress, Public Law 87-594 (76 Stat. 395), August 24, 1962. The project features include Arbuckle Dam and Lake of the Arbuckles on Rock Creek near Sulphur, Okla., a pumping plant, pipelines, and related facilities for furnishing water for municipal and industrial use to the cities of Sulphur, Davis, and Wynnewood, and future users. In conjunction therewith, the project provides flood protection to lands and improvements, protection for fish and wildlife resources, and recreational facilities.

Reservoir storage is designed to yield an average of 24,000 acre-feet of water annually for municipal and industrial uses. Water user demands during the first 10 years of project operation will not require the entire supply available for municipal and industrial use; therefore, under the provisions of the Water Supply Act of 1958, 30 percent of the dam and reservoir investment has been allocated to future demands beyond the initial 10 years' operation.

The total estimated project cost is \$9,805,340. Costs allocated to municipal and industrial water purposes will be repaid within a 50-year period under terms of the repayment contracts. Costs allocated to flood control, fish and wildlife resources, and recreational facilities are nonreimbursable.

Operation and maintenance of the project was transferred to the Arbuckle Master Conservancy District on January 1, 1968. An annual credit is given to finance the nonreimbursable O&M costs.

CONTRACTS

1964, March 19: Contract 14-06-500-894 with the Arbuckle Master Conservancy District provides for repayment of \$7,457,000 (\$2,935,100 is the primary District obligation plus underwriting \$4,521,900, which was assumed by the Water Conservation Storage Commission of the State of Oklahoma) in 50 annual installments beginning October 1, 1969.

1964, March 19: Contract 14-06-500-895 with the Water Conservation Storage Commission of the State of Oklahoma for repayment of \$4,521,900. (To be assumed by the

District when future demands for water have been allocated.)

1967, May 26: Contract 14-06-500-1412 with Water Conservation Storage Commission of Oklahoma and the Arbuckle Master Conservancy District provides for an assignment by the Commission to the District of 4,195 acre-feet of storage and the right to use and dispose of 900 acre-feet of annual yield. An appropriate share of the Commission's obligation was also assigned to the District.

1968, May 1: Supplement No. 1 to contract 14-06-500-1412 provides for an additional assignment of 5,839 acre-feet of storage and 2,394 acre-feet of yield from the Commission to the District.

Summary of status of repayment contracts:

Total value of contracted repayment	\$7,457,000
Total matured charges	0

Statement of Cost and Repayment

Plant, property, and equipment:	
Arbuckle Dam and reservoir	\$6,615,326
Municipal and industrial water plant	2,596,448
Fish and wildlife facilities	113,116
Recreation facilities	455,685
Estimated cost to complete construction	-14,094

Subtotal plant, property, and equipment	9,766,481
Property transfers	38,859

Total cost	9,805,340
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Reimbursable:	
Municipal water supply	7,241,107
Nonreimbursable:	
Flood control	299,953
Fish and wildlife	1,808,838
Recreation	455,442

Total	9,805,340
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Repayment and other credits:

Contributions	224
Other repayment	10,000
Repayment contracts unmatured	7,457,000

Total repayment	7,467,224
Nonreimbursable (76 Stat. 395)	2,564,233

Total repayment and other credits	10,031,457
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Surplus	226,117
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ARNOLD PROJECT

OREGON

Arnold project in Deschutes County, Oreg., serves the Arnold Irrigation District, which was organized as the Arnold Irrigation Co. in 1905. A diversion dam located immediately above the canal intake diverts part of the Deschutes River flow into a short intake channel leading into the distribution system. The District supplements its river flow water with storage water from Crane Prairie Reservoir through inter-district agreements with the Central Oregon Irrigation District.

As most of the structures in the distribution system were constructed of wood, considerable replacement became necessary in later years, and in 1948 the largest flume on the main canal, just below the intake, was in imminent danger of complete failure and possible serious loss of irrigated crops throughout the entire District. Funds to initiate emergency rehabilitation of the works were provided July 25, 1947, in the Interior Department Appropriation Act of 1948 (61 Stat. 460). The Bureau of Reclamation replaced the old wood flume with a semicircular steel flume and installed a new concrete headworks. This work was completed in 1949. In 1959, the Bureau of Reclamation began additional work on the distribution system. Replacement of the Suttong flume and rehabilitation of O'Donnell flume and siphon were accomplished with funds provided by the Public Works Appropriation Act of August 26, 1957 (71 Stat. 416). This portion of the work was completed in 1962.

The total actual construction cost of all rehabilitation work is \$242,926, which is allocated to irrigation and is reimbursable.

Prior to the rehabilitation of its distribution system in 1947, the District assessed about 4,200 acres, of which approximately 3,500 were actually irrigated. In 1969, the irrigable area for service was 4,292 acres and the irrigated area consisted of 2,617 acres. The gross value of crops produced on the irrigated area in 1969 was \$93,765, and the average value per irrigated acre was \$35.83.

The Arnold Irrigation District operates the project works.

Repayment contracts.—A repayment contract between the Arnold Irrigation District and the United States, dated September 3, 1948, provides for repayment to the United States of all costs up to a maximum of \$210,000.

An amendatory contract dated June 22, 1953, was entered into primarily to modify the repayment terms of the September 3, 1948, contract by extending the payout period from 35 to 40 years. The purpose of the contract was to increase the amount of current District revenue which would be available to the District for doing further rehabilitation and betterment work.

A supplemental repayment contract dated March 20, 1959, was entered into for the purpose of replacing or rehabilitating the Suttong and O'Donnell flumes at a cost not to exceed \$45,000.

An amendatory repayment contract dated February 14, 1969, was entered into so that construction repayment installments would be computed on the basis of actual crop returns rather than estimated crop returns. In addition, the dates for repayment of semi-annual installments by the District were changed, making them more compatible with current assessment procedures.

Payout schedule.—Based on the announced actual cost of \$197,926 under the 1948 and 1953 contracts, payout is scheduled for completion in 1991 with an annual base installment of \$4,902 commencing in 1952. Payout of the \$45,000 cost under the 1959 contract is scheduled for completion in 1981, commencing in 1964 with an annual base installment of \$2,500.

PUBLIC NOTICES AND CONTRACTS

1948, September 3: Contract Ilr-1519 with Arnold Irrigation District to rehabilitate distribution system, cost not to exceed \$210,000. Semiannual installments due January 15 and July 15. Irrigable acreage at time of contract was 4,053 acres.

1950, December 21: Notice from acting regional director announcing the total estimated cost at \$207,150, to be

REPAYMENT OF RECLAMATION PROJECTS

repaid in 35 equal installments, subject to application of normal and percentage repayment plan.

1953, June 22: Contract 14-06-100-132 extending the repayment period to 40 years.

1953, August 24: Notice from Assistant Secretary of the Interior announcing the actual project cost at \$197,926, to be repaid in 40 annual installments, subject to application of normal and percentage repayment plan.

1959, March 20: Contract 14-06-100-1696 with Arnold Irrigation District to rehabilitate Suttong flume and O'Donnell flume, cost not to exceed \$45,000. Semiannual installments due January 15 and July 15.

1962, October 17: Notice from acting regional director announcing the actual cost of rehabilitating Suttong and O'Donnell flumes at \$45,000. Base installment of \$2,500

subject to application of normal and percentage repayment plan.

1969, February 14: Contract 14-06-100-6442 with Arnold Irrigation District changed annual construction charge notice date from September 1 to March 15 and payment dates from January 15 and July 15 to September 1 of the current year, and March 1 of the following year. Computations of installment are based on actual crop returns of preceding year instead of estimated returns for current year.

Summary of status of repayment contracts:

Total value of contracted repayment	\$242,926
Total matured charges	61,019
Total matured charges repaid	61,019
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1952	\$210,000	\$4,202		\$4,202	\$4,202		\$4,202	\$4,202
1953	210,000	5,859		5,859	5,859		5,859	10,061
1954	197,926	6,599		6,599	6,599		6,599	16,660
1955	197,926	6,618		6,618	6,618		6,618	23,278
1956	197,926	5,833		5,833	5,833		5,833	29,111
1957	197,926	3,138		3,138	3,138		3,138	32,249
1958	197,926	1,005		1,005	1,005		1,005	33,254
1959	242,926	735		735	735		735	33,989
1960	242,926	735		735	735		735	34,724
1961	242,926	2,108		2,108	2,108		2,108	36,832
1962	242,926	2,108		2,108	2,108		2,108	38,940
1963	242,926	735		735	735		735	39,675
1964	242,926	2,121		2,121	2,121		2,121	41,796
1965	242,926	2,309		2,309	2,309		2,309	44,105
1966	242,926	2,924		2,924	2,924		2,924	47,029
1967	242,926	2,887		2,887	2,887		2,887	49,916
1968	242,926	4,515		4,515	4,515		4,515	54,431
1969	242,926	6,588		6,588	6,588		6,588	61,019
Total ¹		61,019		61,019	61,019		61,019	

¹ Excludes accrual of \$1,702 for fiscal year 1970.

AVONDALE PROJECT

IDAHO

Rehabilitation of facilities of the Avondale Irrigation District was authorized by the terms of the Interior Department Appropriation Act of 1954 (July 31, 1953, 67 Stat. 266). The project is located in Kootenai County in northern Idaho. The purpose of the project works is to provide irrigation water to about 900 acres in which part-time farms and suburban residence units predominate. In 1969, the irrigable acreage for service was 873 acres and the irrigated area was 601 acres. In this same year, the gross crop value was \$63,857 and the average value per irrigated acre was \$106.25.

The principal features consist of two centrifugal pumps capable of delivering 3,000 gallons per minute each, an elevated steel equalizing reservoir with a 50,000-gallon capacity, 315 feet of steel intake pipe, approximately 470 feet of main discharge line, approximately 2,400 feet of steel supply lines, and a distribution system of about 10 miles of steel pipe.

Total construction cost of these facilities is \$244,424, all of which is allocated to irrigation and is reimbursable.

As a result of accelerated corrosion and deterioration of existing pipelines constructed under the 1953 rehabilitation program, additional construction work consisting of lining, replacing, and improving these works was authorized by Public Law 87-289 (75 Stat. 588), dated September 22, 1961. In addition, some replacement of pipe previously installed by the District was completed at a cost of \$328,376.

The Avondale Irrigation District operates the project works.

Repayment contracts.—The repayment contract with the District, dated July 14, 1954, provides for repayment to the United States of the actual cost of the project works in an amount not to exceed \$224,000. This amount includes \$2,000 for actual costs of past surveys and investigations, and is established as a part of the District's construction charge obligation. A supplemental contract was also signed with the District on July 14, 1954, to repay an additional sum not to

exceed \$53,000. This contract provides for the inclusion of an elevated steel equalizing tank with automatic pump control facilities and additional steel pipe distribution lines to the project works. The cost of these facilities is to be consolidated with the District's construction obligation and to be repaid by continuing the same annual installments over an extended period.

Payout schedule.—Repayment contract 14-06-100-2393, dated March 26, 1962, with the District provides for repayment of a maximum of \$134,389 out of the \$409,000 estimated cost of the current replacement and improvement program. Remainder of the cost will be repaid from power revenues through Bonneville Power Administration.

A 2-year development period was fixed, starting January 1, 1956. The first annual construction installment was due December 31, 1958, with repayment to be completed in 44 years.

CONTRACTS AND NOTICES

- 1954, July 14: Contracts 14-06-100-517 and 518 with Avondale Irrigation District to repay \$224,000, the estimated cost of project rehabilitation, in 40 equal annual installments. Installments are due December 31 or, at option of District, may be paid one-half on December 31 and one-half on following June 30.
- 1954, July 14: Contract for construction of additional irrigation facilities, to repay \$53,000 in extended annual installments. The extended payments shall be in the same amounts, and due and payable upon the same basis, as established in the contract dated July 14, 1954.
- 1957, June 13: Notice from acting regional director announcing the actual cost at \$244,424, to be repaid in 44 annual installments.
- 1962, March 26: Contract 14-06-100-2393 with Avondale Irrigation District for pipe replacement and additional work, payable in 40 annual installments beginning December 31, 1964 (\$134,389). Installments due on same dates as 1954 contracts.
- 1965, February 5: Notice from acting regional director announcing actual costs under contract of March 26, 1962. Discharge and lateral system cost was \$257,555 and additional District facilities cost was \$70,821. The District will repay \$31,389.15 of the discharge and lateral

REPAYMENT OF RECLAMATION PROJECTS

system cost and all of the additional District facilities cost.

Deferred maintenance funded—R&B 24,061

Total costs allocated to irrigation 572,800

Summary of status of repayment contracts:

Total value of contracted repayment \$346,634
 Total matured charges 73,427
 Total matured charges repaid 73,427
 Total matured charges unpaid 0

Repayment:

Repayment realized:

Repayment contracts matured 73,427

Anticipated future repayments:

Repayment contracts unmatured 273,206

Repayment from Bonneville Power

Administration 226,167

Total repayment 572,800

Cost and repayment allocations:

Cost:

Irrigation plant \$548,739

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1958-----	\$244,424					\$2,798	\$2,798	\$2,798
1959-----	244,424	\$5,595		\$5,595	\$5,595		5,595	8,393
1960-----	244,424	5,595		5,595	5,595		5,595	13,988
1961-----	244,424	8,393		8,393	5,595		5,595	19,583
1962-----	378,813	2,798		2,798	2,798		2,798	22,381
1963-----	378,813	5,596		5,596	5,596		5,596	27,977
1964-----	378,813	5,595		5,595	5,595		5,595	33,572
1965-----	¹ 346,634	8,631		8,631	8,631		8,631	42,203
1966-----	346,634	7,806		7,806	7,806		7,806	50,009
1967-----	346,634	7,806		7,806	7,806		7,806	57,815
1968-----	346,634	7,806		7,806	7,806		7,806	65,621
1969-----	346,634	7,806		7,806	7,806		7,806	73,427
Total--		73,427		73,427	70,629	2,798	73,427	

¹ Reduced to actual repayable obligation.

BAKER PROJECT

OREGON

Construction of the Lower division (Thief Valley Dam and Reservoir) was found feasible by the Secretary of the Interior on March 17, 1931, and was authorized by the President on March 18, 1931. The Upper division of the Baker project was authorized by an act of Congress on September 27, 1962 (76 Stat. 634). Construction of Upper division facilities began in fiscal year 1965 and was completed in fiscal year 1969.

LOWER DIVISION

The original Baker project, now referred to as the Lower division, was developed by early settlers, and consisted of diversion works and a canal system to serve approximately 7,300 acres in Baker County in the Lower Powder River Valley. Midsummer river flows proved too erratic for sustained crop production. To supplement the water supply, construction of Thief Valley Dam was begun September 12, 1931, with first storage available June 1, 1932. The land area served by the storage facilities has remained virtually constant since construction was completed. The irrigable area for service was 7,281 acres in 1969 and the irrigated area was 7,221 acres. The gross value of crops produced on the project lands in 1969 was \$408,618 and the average value per irrigated acre was \$56.59.

Total cost of the Bureau-built portion of the Lower division was \$276,589. This includes \$225,015, the cost of Thief Valley Dam and Reservoir, which is being repaid by the Lower Powder River Irrigation District; and \$51,574 of deferred investigations cost which was declared nonreimbursable by the Commissioner on June 4, 1963, when it was determined that no future development was to be made on the Lower division.

The Lower Powder River Irrigation District has operated the project since June 1, 1932. There are no power facilities or reserved works.

Repayment contracts.—In 1931, the Lower Powder River Irrigation District contracted with the Bureau of Reclamation to build Thief Valley Dam and Reservoir. After excavation was started, it became apparent that more excavating would be required than originally estimated. The year following, a supplemental contract was negotiated increasing the limitations on expenditures from \$200,000 to \$240,000 to provide for additional excavating and concrete work. Otherwise, provisions of the original contract remained unchanged.

Payout schedule.—Payout is scheduled for completion in 1976 by 39 equal annual installments of \$5,770, commencing in 1937 with the first half-year payment.

CONTRACTS AND NOTICE

- 1931, May 18: Contract Ilr-649 with Lower Powder River Irrigation District for construction of Thief Valley Dam with total obligation not to exceed \$200,000, repayable in 39 years. Irrigable acreage on date of contract was 7,312 acres.
- 1932, February 29: Supplemental repayment contract to increase the limit of expenditure from \$200,000 to \$240,000.
- 1933, November 8: Final cost notice issued to the Lower Powder River Irrigation District by the Secretary's office. Annual installments due December 31.

Summary of status of repayment contracts:

Total value of contracted repayment	\$225,015
Total matured charges	187,511
Total matured charges repaid	187,511
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—LOWER DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932-----	\$240,000	(¹)	-----	-----	-----	-----	-----	-----
1933-----	240,000	(¹)	-----	-----	-----	-----	-----	-----
1934-----	225,188	(¹)	-----	-----	-----	-----	-----	-----
1935-----	225,188	(¹)	-----	-----	-----	-----	-----	-----
1936-----	225,015	(¹)	-----	-----	-----	-----	-----	-----
1937-----	225,015	\$2,885	-----	\$2,885	\$2,885	-----	\$2,885	\$2,885
1938-----	225,015	5,770	-----	5,770	5,770	-----	5,770	8,655
1939-----	225,015	5,769	-----	5,769	5,769	-----	5,769	14,424
1940-----	225,015	5,770	-----	5,770	5,770	-----	5,770	20,194
1941-----	225,015	5,769	-----	5,769	5,769	-----	5,769	25,963
1942-----	225,015	5,770	-----	5,770	5,770	-----	5,770	31,733
1943-----	225,015	5,769	-----	5,769	5,769	-----	5,769	37,502
1944-----	225,015	5,770	-----	5,770	5,770	-----	5,770	43,272
1945-----	225,015	5,769	-----	5,769	5,769	-----	5,769	49,041
1946-----	225,015	5,769	-----	5,769	5,769	-----	5,769	54,810
1947-----	225,015	5,770	-----	5,770	5,770	-----	5,770	60,580
1948-----	225,015	5,769	-----	5,769	5,769	-----	5,769	66,349
1949-----	225,015	5,770	-----	5,770	5,770	-----	5,770	72,119
1950-----	225,015	5,769	-----	5,769	5,769	-----	5,769	77,888
1951-----	225,015	5,770	-----	5,770	5,770	-----	5,770	83,658
1952-----	225,015	5,770	-----	5,770	5,770	-----	5,770	89,428
1953-----	225,015	5,770	-----	5,770	5,770	-----	5,770	95,198
1954-----	225,015	5,769	-----	5,769	5,769	-----	5,769	100,967
1955-----	225,015	5,770	-----	5,770	5,770	-----	5,770	106,737
1956-----	225,015	5,769	-----	5,769	5,769	-----	5,769	112,506
1957-----	225,015	5,770	-----	5,770	5,770	-----	5,770	118,276
1958-----	225,015	5,770	-----	5,770	5,770	-----	5,770	124,046
1959-----	225,015	5,769	-----	5,769	5,769	-----	5,769	129,815
1960-----	225,015	5,770	-----	5,770	5,770	-----	5,770	135,585
1961-----	225,015	5,769	-----	5,769	5,769	-----	5,769	141,354
1962-----	225,015	5,770	-----	5,770	5,770	-----	5,770	147,124
1963-----	225,015	5,770	-----	5,770	5,770	-----	5,770	152,894
1964-----	225,015	5,769	-----	5,769	5,769	-----	5,769	158,663
1965-----	225,015	5,770	-----	5,770	5,770	-----	5,770	164,433
1966-----	225,015	5,769	-----	5,769	5,769	-----	5,769	170,202
1967-----	225,015	5,770	-----	5,770	5,770	-----	5,770	175,972
1968-----	225,015	5,770	-----	5,770	5,770	-----	5,770	181,742
1969-----	225,015	5,769	-----	5,769	5,769	-----	5,769	187,511
Total -----	-----	187,511	-----	187,511	187,511	-----	187,511	-----

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1933, \$5,770; 1934, \$5,769; 1935, \$5,770; 1936, \$2,884.

UPPER DIVISION

Lands in the Upper division lie on both sides of the Powder River in Baker County in northeastern Oregon. The lands being served are encompassed in an area about 7 miles wide and 16 miles long. There are approximately 18,000 irrigable acres being served under the division, some of which were irrigated previously by natural stream-flow which did not provide an adequate water supply during the entire irrigation season. The remainder is new land being irrigated for the first time with water provided by project facilities.

In 1969, the irrigable area for service in the Upper division was 18,532 acres and the irrigated area consisted of 16,039 acres. The gross value of crops pro-

duced in 1969 was \$1,205,474 and the average value per irrigated acre was \$75.16.

Major project facilities of the Upper division include multipurpose Mason Dam with 100,000 acre-feet of reservoir capacity, Lilley main and relift pumping plants, and recreation facilities. Operation and maintenance of project facilities were formally turned over to the Baker Valley Irrigation District by notice dated August 23, 1968.

Status of repayment contract:

Total value of contracted repayment	\$1,127,500
Total matured charges	0

Repayment contracts.—On April 5, 1965, the Baker

Valley Irrigation District signed a contract to pay \$1,127,500 to the United States as its construction charge obligation. This obligation is to be repaid in 50 equal annual installments following a 10-year development period which began January 1, 1969. Provision exists for adopting a variable repayment formula that is mutually agreeable between the directors of the Irrigation District and the Secretary of the Interior. The contract provides for the District to operate and maintain Mason Dam and Reservoir for flood control and fish and wildlife, as well as for other specified project functions. The annual expense allocated to flood control and fish and wildlife functions will be credited to any obligation owing by the District to the United States.

CONTRACT AND NOTICE

1965, April 5: Contract 14-06-100-5130 with Baker Valley Irrigation District to repay \$1,127,500 in 50 equal annual installments. Installments will become due one-half on December 31 of the year for which installment is applicable and one-half on the following June 30.

1968, August 23: Announcement to Baker Valley Irrigation District advising of formal transfer of project facilities to the District for operation and maintenance and that the 10-year development period began January 1, 1969.

Statement of project cost and repayment allocated to irrigation:

	Total	Lower division	Upper division
<i>Cost:</i>			
Irrigation plant	\$8,008,754	\$225,015	\$7,783,739
Investigations	51,574	51,574	...
Property transfer funded	25,797	...	25,797
Total costs	8,086,125	276,589	7,809,536
<i>Repayment and other credits:</i>			
<i>Repayment realized:</i>			
Repayment contract matured	187,512	187,512	...
Contributions	6,726	...	6,726
Subtotal	194,238	187,512	6,726
<i>Anticipated future repayment</i>			
Repayment contracts unmatured	1,165,003	37,503	1,127,500
Irrigation repayment by power (BPA) ..	4,140,756	...	4,140,756
Subtotal	5,305,759	37,503	5,268,256
Total repayment	5,499,997	225,015	5,274,982
<i>Nonreimbursable construction costs</i>			
Flood control	909,310	...	909,310
Fish and wildlife	956,873	...	956,873
Recreation	132,971	...	132,971
Highway transportation	535,400	...	535,400
<i>Nonreimbursable expenses</i>			
Investigation costs	51,574	51,574	...
Subtotal	2,586,128	51,574	2,534,554
Total repayment and other credits ..	8,086,125	276,589	7,809,536

BALMORHEA PROJECT

TEXAS

Repairs and reconstruction work on the Balmorhea project in Reeves County in west Texas were approved by the President on April 15, 1944, under authority of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended, and completed in 1947.

The project features include purchase of the Phantom Lake Spring, construction of the Phantom Lake Canal to convey water from the spring to the project, construction of the inlet feeder canal to carry normal low flows in excess of immediate irrigation demands from the present main canal to the Lower Parks Reservoir, some necessary repairs to existing irrigation facilities, and the necessary operation and maintenance during construction.

The total cost of constructing the Balmorhea project features was \$407,742, excluding \$29,556 of funded operation and maintenance charges. Reimbursable costs are limited to \$255,600 by the finding of feasibility made pursuant to the July 16, 1943, amendment to the Water Conservation and Utilization Act.

The project was developed to supply supplemental water to 10,608 acres of land. Of the 10,608 acres of irrigation service land, 7,560 acres were irrigated during the 1969 crop year, having a \$784,316 gross crop value and an average of \$103.75 per acre.

The Balmorhea project is operated by the Reeves County Water Improvement District No. 1.

CONTRACT

1945, August 23: Contract Ilr-1473 with Reeves County Water Improvement District No. 1 for construction repayment of \$255,600 in 40 annual installments, to be paid semi-annually on March 1 and September 1 of each year. Irrigable acreage on date of contract, 10,608. The payout period is 1948-87, inclusive.

Summary of status of repayment contract:

Total value of contracted repayment	\$255,600
Total matured charges	65,418
Total matured charges repaid	65,418
Total matured charges unpaid	0

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1948-----	\$5,500	\$5,500
1949-----	2,600	2,600
1950-----	6,000	6,000
1951-----	5,800	5,800
Total-----	19,900	19,900

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1948-----	\$255,600	\$1,119	-----	\$1,119	\$1,119	-----	\$1,119	\$1,119
1949-----	255,600	2,319	-----	2,319	2,319	-----	2,319	3,438
1950-----	255,600	2,479	-----	2,479	2,479	-----	2,479	5,917
1951-----	255,600	2,639	-----	2,639	2,639	-----	2,639	8,556
1952-----	255,600	2,799	-----	2,799	2,799	-----	2,799	11,355
1953-----	255,600	2,709	-----	2,709	2,709	-----	2,709	14,064
1954-----	255,600	2,629	-----	2,629	2,629	-----	2,629	16,693
1955-----	255,600	2,559	-----	2,559	2,559	-----	2,559	19,252
1956-----	255,600	2,499	-----	2,499	2,499	-----	2,499	21,751
1957-----	255,600	2,449	-----	2,449	2,449	-----	2,449	24,200
1958-----	255,600	2,409	-----	2,409	2,409	-----	2,409	26,609
1959-----	255,600	2,379	-----	2,379	2,379	-----	2,379	28,988
1960-----	255,600	2,359	-----	2,359	2,359	-----	2,359	31,347
1961-----	255,600	2,349	-----	2,349	2,349	-----	2,349	33,696
1962-----	255,600	2,349	-----	2,349	2,349	-----	2,349	36,045
1963-----	255,600	2,359	-----	2,359	2,359	-----	2,359	38,404
1964-----	255,600	2,379	-----	2,379	2,379	-----	2,379	40,783
1965-----	255,600	2,409	-----	2,409	2,409	-----	2,409	43,192
1966-----	255,600	2,449	-----	2,449	2,449	-----	2,449	45,641
1967-----	255,600	2,499	-----	2,499	2,499	-----	2,499	48,140
1968-----	255,600	6,559	-----	6,559	6,559	-----	6,559	54,699
1969-----	255,600	10,719	-----	10,719	10,719	-----	10,719	65,418
Total-----	-----	65,418	-----	65,418	65,418	-----	65,418	-----

PAYOUT STUDY

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end of year	Interest free balance to be repaid
1948-----	\$1,119	\$425,760	\$254,481
1949-----	2,319	437,889	252,162
1950-----	2,479	437,641	249,683
1951-----	2,639	437,674	247,044
1952-----	2,799	437,726	244,245
1953-----	2,709	437,726	241,536
1954-----	2,629	407,741	238,907
1955-----	2,559	407,741	236,348
1956-----	2,499	406,533	233,849
1957-----	2,449	406,533	231,400
1958-----	2,409	406,533	228,991
1959-----	2,379	406,533	226,612
1960-----	2,359	406,533	224,253
1961-----	2,349	406,533	221,904
1962-----	2,349	406,533	219,555
1963-----	2,359	406,533	217,196
1964-----	2,379	406,533	214,817
1965-----	2,409	406,533	212,408
1966-----	2,449	406,533	209,959
1967-----	2,499	406,533	207,460
1968-----	6,559	406,533	200,901
1969-----	10,719	406,533	190,182
Subtotal-----	65,418	-----	-----

PAYOUT STUDY—Continued

Fiscal year	Net revenues from irrigation water users	Irrigation plant in service at end if year	Interest free balance to be repaid
1970-----	10,719	406,533	179,463
1971-----	10,719	406,533	168,744
1972-----	10,719	406,533	158,025
1973-----	10,719	406,533	147,306
1974-----	10,719	406,533	136,587
1975-----	10,719	406,533	125,868
1976-----	10,719	406,533	115,149
1977-----	10,719	406,533	104,430
1978-----	10,719	406,533	93,711
1979-----	10,719	406,533	82,992
1980-----	10,719	406,533	72,273
1981-----	10,719	406,533	61,554
1982-----	10,719	406,533	50,835
1983-----	10,719	406,533	40,116
1984-----	10,719	406,533	29,397
1985-----	10,719	406,533	18,678
1986-----	10,719	406,533	7,959
1987-----	6,659	406,533	1,300
1988-----	1,300	406,533	0
Total-----	255,600	-----	-----

¹ Plant costs reclassified to remove operation and maintenance during construction.

See footnote at end of table.

BELLE FOURCHE PROJECT

SOUTH DAKOTA

The Belle Fourche project, situated in western South Dakota, was authorized by the Secretary under the Reclamation Act of 1902 (32 Stat. 388) on May 10, 1904; examined and reported upon by a Board of Army Engineers pursuant to the act of June 25, 1910 (36 Stat. 835), and approved by the President on January 5, 1911. Supplemental storage for this project is provided by the Keyhole unit of the Missouri River Basin project, authorized under terms of the Flood Control Acts of 1944 and 1946.

The project was constructed for irrigation and includes 57,068 acres of irrigable land in Meade and Butte Counties. For the 1969 crop year, 52,013 acres were irrigated with a gross crop value of \$3,314,365 or \$63.72 per acre. The cumulative gross crop value from 1908-69 amounts to \$88,686,900.

The water supply is diverted from the Belle Fourche River, with diversion works located 1½ miles downstream from the city of Belle Fourche. Water is carried through a 6½-mile inlet canal in a northeasterly direction to the Belle Fourche Reservoir on Owl Creek. Water from the reservoir is released through the Belle Fourche Dam into the North and South Canals, which are 43 and 44 miles in length. Four hundred fifty miles of laterals and 232 miles of drains complete the distribution and drainage system.

The Belle Fourche Irrigation District, with headquarters at Newell, S. Dak., assumed the operation and maintenance of the project works on January 1, 1949.

Repayment contracts.—Construction repayment began in 1909 under public notice and individual water right applications. Repayment charges were first assumed by the Belle Fourche Irrigation District under contract dated July 16, 1923. Numerous amendments to this contract were necessary during the period from 1923 to 1949 to meet changing conditions. The District is currently operating under an amendatory contract dated November 29, 1949, negotiated pursuant to subsection (a) of section 7 of the Reclamation Act of 1939, and approved by Public Law 419, 81st Congress,

1st session. The obligation is to be repaid at the rate of \$38,700 per year under the terms of this contract, with the provision for repayment of the annual installments under a variable formula reflecting changing economic conditions. Because of severe water shortages during the years 1960 and 1961, the 1962 construction charge was deferred under the terms of an amendment to the contract dated February 23, 1962, with payment to be made in 10 semiannual installments, beginning June 30, 1970.

Statement of cost and repayment:

Belle Fourche Dam and Reservoir	\$4,627,949
Rehabilitation and betterment	399,871
Plant, property, and equipment	<u>5,027,820</u>
Corollary construction costs:	
Property transfers	10,287
Investigations and negotiations	63,367
Subtotal	<u>73,654</u>
Total cost	5,101,474
Other charges:	
Operation and maintenance	570,195
Interest and penalties	106,383
Total	<u>5,778,052</u>

Repayment and other credits:

Repayment realized:	
Repayment contracts matured	\$1,979,302
Water users advances	5,325
Subtotal	<u>1,984,627</u>
Anticipated future repayment:	
Repayment contracts unmatured	2,250,758
Unassigned costs	17,800
Total repayment	<u>4,253,185</u>
Other credits:	
Nonreimbursable expenses	14,731
Chargeoffs by Congress:	
Act of May 25, 1926	379,032
Act of Oct. 27, 1949	273,668

Land classifications, Dec. 27, 1948,	
13,604.7 acres	735,606
Feb. 11, 1955, 1,682.9 acres	90,994
Chargeoff—renegotiation of contract	30,836
Subtotal	1,524,867
Total repayment and other credits	5,778,052

All costs are allocated to irrigation and total \$5,101,474.

Under date of January 2, 1963, the Irrigation District contracted for supplemental storage in the Keyhole Reservoir at the Missouri River Basin project. The District has agreed to repay \$60,000 in 40 successive annual installments, beginning with the year 1963, for the right to the use of 7.7 percent of the active capacity of the reservoir. Additional water, when available, may be purchased at the rate of \$1.25 per acre foot.

PUBLIC NOTICES AND CONTRACTS¹

- 1907, June 21: Public notice. Construction charge \$30 per acre. Payable 10 equal annual installments.
- 1910, February 19: Public notice. Construction charge \$30 per acre. Payable 10 equal annual installments.
- 1911, December 30: Public notice. Equal annual installments changed to graduated annual installments and for some lands construction charge raised to \$35 and \$40 per acre.
- 1912, May 2: Public notice. Construction charge \$30, \$35, and \$40 per acre. Payable 10 graduated installments.
- 1915, May 18: Public notice. Construction charge \$40 per acre. Payable 20 graduated installments.
- 1917, January 9: Public notice. Construction charge \$45 per acre. Payable 20 graduated installments.
- 1921, August 2: Public notice. Construction charge \$45 per acre. Payable 20 graduated installments.
- 1923, July 16: Contract with Belle Fourche Irrigation District. District obligated to pay construction cost of project. Construction deficit, operation and maintenance deficit, and delinquent charges merged as supplemental con-

struction to be paid after 20-year-repayment period in installments of \$3.15 per acre.

- 1927, October 4: Contract Ilr-237 with Belle Fourche Irrigation District. Time of payment of primary construction charges extended to 40 years. Delinquent operation and maintenance and penalties and construction penalties funded. District assumed additional obligation for construction of drains, \$1,000,000, and for replacement of structures, \$150,000, to be paid as supplemental construction. Supplemental construction to be paid in 20 semi-annual installments after primary construction.
- 1931, September 1: Contract with Belle Fourche Irrigation District. Remainder of primary construction to be paid in graduated annual installments of from \$50,000 to \$75,000, 1931 to 1955. Supplemental construction to be paid after primary at rate of \$75,000 per year.
- 1949, November 29: Amendatory contract Ilr-1555 with the Belle Fourche Irrigation District established a repayment rate of \$38,700 per year unless the District elects to pay annual installments according to a variable formula.
- 1962, February 23: Supplement to contract Ilr-1555 deferring payment of 1962 construction charge in amount of \$38,700. Payment to be made in 10 equal annual installments beginning June 30, 1970.

¹ Excluding minor contracts for rights-of-way.

Summary of status of repayment contracts:

Total value of contracted repayment	\$4,230,060
Total matured charges	1,979,302
Total matured charges repaid	1,979,302
Total matured charges unpaid	0

Payout schedule.—Payout of the current unmatured obligation of \$2,250,758 exclusive of supplemental water from Keyhole Reservoir is scheduled for completion in the year 2027 by the payment of \$38,700 annually. 1962 construction charge, deferred by supplemental contract dated February 23, 1962, is scheduled for repayment in 10 equal annual installments beginning June 30, 1970.

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$22,313		\$22,313	\$612		\$612	\$612
1910		32,322		32,322	9,646	\$19,475	29,121	29,733
1911		100,218		100,218	8,370	24,120	32,490	62,223
1912		54,100	¹ \$127,094	¹ 72,994	30,438	¹ 34,885	¹ 4,447	57,776
1913		96,809	4,135	100,944	15,824	17,880	33,704	91,480
1914		133,895	² 42,501	91,394	12,556	2,278	14,834	106,314
1915	\$1,621,056	74,246	¹ 105,659	¹ 31,413	21,224	¹ 2,049	19,175	125,489
1916	1,914,686	40,085	¹ 96,363	¹ 56,278	25,718	10,922	36,640	162,129
1917	2,125,659	43,404		43,404	23,755	24,382	48,137	210,266
1918	2,269,795	36,918		36,918	22,054	19,649	41,703	251,969
1919	2,394,007	64,244		64,244	46,424	14,864	61,288	313,257
1920	2,621,980	68,562		68,562	48,817	10,297	59,114	372,371
1921	2,616,632	100,454		100,454	39,441	9,983	49,424	421,795
1922	2,617,847	110,791	³ 719	110,072	16,252	9,282	25,534	447,329
1923	2,597,278	119,910	¹ 1,668	118,242	8,646	6,251	14,897	462,226
1924	² 4,345,277	62,744	¹ 331,284	¹ 268,540	28,902	¹ 65,103	¹ 36,201	426,025
1925	4,345,277	137,112	62,316	199,428	19,582	26,418	46,000	472,025
1926	4,345,277	137,078		137,078	7,109		7,109	479,134
1927	4,345,277	0	¹ 121	¹ 121	0	¹ 30	¹ 30	479,104
1928	4,343,586	6,584	¹ 683	5,901	6,584	¹ 641	5,943	485,047
1929	4,251,433	72,779	¹ 322,115	¹ 249,336	72,779	¹ 5,014	67,765	552,812
1930	³ 4,516,493	34,521	¹ 1,322	33,199	34,521	¹ 1,322	33,199	586,011
1931	5,404,740	61,179	¹ 2,562	58,617	61,179	¹ 2,562	58,617	644,628
1932	5,313,998	⁴ 1,635	¹ 23,879	¹ 22,244	1,635	¹ 23,879	¹ 22,244	622,384
1933	5,313,998	⁴ 1,167		1,167	1,167		1,167	623,551
1934	5,324,254	⁴ 799		799	799		799	624,350
1935	5,324,254	⁴ 0	¹ 221	¹ 221	0	¹ 221	¹ 221	624,129
1936	5,320,632	⁴ 2,505		2,505	2,505		2,505	626,634
1937	5,320,632	⁴ 57,458		57,458	5,106		5,106	631,740
1938	5,320,632	⁴ 17,413	¹ 3,384	14,029	1,997	18,691	20,688	652,428
1939	5,320,632	⁵ 57,716		57,716	4,031	16,131	20,162	672,590
1940	5,320,632	⁵ 28,655	¹ 67,748	¹ 39,093	1,724	13,711	15,435	688,025
1941	5,320,632	⁵ 33,828		33,828	7,445	1,790	9,235	697,260
1942	5,320,632	33,498		33,498	5,431	22,839	28,270	725,530
1943	5,320,632	⁵ 66,138		66,138	60,311	58,539	118,850	844,380
1944	5,320,632	63,020		63,020	49,829	5,828	55,657	900,037
1945	5,320,632	63,172	¹ 20,785	42,387	61,986	¹ 7,594	54,392	954,429
1946	5,320,632	66,464		66,464	14,752	1,186	15,938	970,367
1947	5,320,632	69,791		69,791	791	6,117	6,908	977,275
1948	5,320,632	⁵ 69,000		69,000	35,206	114,595	149,801	1,127,076
1949	5,320,632	⁵ 103,500	¹ 50,300	53,200	34,549	33,794	68,343	1,195,419
1950	5,320,632	19,350		19,350	19,350	18,651	38,001	1,233,420
1951	⁶ 3,921,183	38,700	32,407	71,107	38,700	32,407	71,107	1,304,527
1952	⁷ 4,321,183	38,700		38,700	38,700		38,700	1,343,227
1953	4,321,183	38,700	⁸ 2,549	41,249	38,700	2,549	41,249	1,384,476
1954	4,321,183	38,700		38,700	38,700		38,700	1,423,176
1955	⁶ 4,230,189	38,700		38,700	38,700		38,700	1,461,876
1956	4,230,189	38,700		38,700	38,700		38,700	1,500,576
1957	4,230,060	38,700	⁹ 10,838	49,538	38,700	10,838	49,538	1,550,114
1958	4,230,060	38,700	⁶ 680	39,380	38,700	680	39,380	1,589,494
1959	4,230,060	38,700	⁸ 840	39,540	38,700	840	39,540	1,629,034
1960	4,230,060	38,700	⁸ 520	39,220	38,700	520	39,220	1,668,254
1961	4,230,060	38,700		38,700	38,700		38,700	1,706,954
1962	4,230,060	¹⁰ 19,350	⁶ 1,154	20,504	19,350	1,154	20,504	1,727,458
1963	4,230,060	¹⁰ 19,350		19,350	19,350		19,350	1,746,808
1964	4,230,060	38,700		38,700	38,700		38,700	1,785,508
1965	4,230,060	38,700	⁵ 294	38,994	38,700	294	38,994	1,824,502
1966	4,230,060	38,700		38,700	38,700		38,700	1,863,202
1967	4,230,060	38,700		38,700	38,700		38,700	1,901,902
1968	4,230,060	38,700		38,700	38,700		38,700	1,940,602
1969	4,230,060	38,700		38,700	38,700		38,700	1,979,302
Total		3,061,977	-1,082,675	1,979,302	1,565,647	413,655	1,979,302	

¹ Decrease. Decreases are due to funding of delinquent charges, deferments under relief acts and cancellations of water-right applications. 1912—Reduction of accruals, 1911 public notice. 1915—Reclamation Extension Act, Aug. 3, 1914. 1924—Funding of delinquencies, 1923 contract. 1929—Funding of delinquencies, 1927 contract.

² Increase in obligation due to assumption by District of obligation to pay construction and operation and maintenance deficits and to funding of delinquencies.

³ Increase in obligation due to assumption by District of obligation for drainage work and replacements, and to funding of delinquencies.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$51,907; 1932, \$50,764; 1933, \$49,202; 1934, \$49,574; 1935, \$49,062; 1936, \$27,047. Part 1937 charge deferred under act of Aug. 21, 1937, \$38,500. Part 1938 charges deferred under act of May 31, 1939, \$30,218.

⁵ Charges deferred under act of Aug. 4, 1939: year 1939, \$53,993; 1940, \$26,930; 1941, \$30,630; 1943, \$20,685; 1948, \$20,000; and 1949, \$30,300, \$32,407 additional credits allowed under the 1949 amendatory repayment contract.

⁶ Decrease due to beginning and completion of land reclassification as provided for in the amendatory contract dated Nov. 29, 1949.

⁷ \$400,000 rehabilitation and betterment added.

⁸ Applications of funds received from grazing rentals and purchase of highway rights-of-way.

⁹ Applications of funds received from sale of public lands and purchase of highway rights-of-way.

¹⁰ Payment of two installments of \$19,350 each, deferred under act of Sept. 21, 1959, to be repaid in 10 semiannual installments beginning June 30, 1970.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1909	\$5,950	\$5,371
1910	11,976	11,806
1911	22,463	22,598
1912	27,492	13,433
1913	32,117	12,181
1914	30,341	25,532
1915	¹ 4,800	15,613
1916	30,843	25,275
1917	54,868	43,579
1918	67,490	62,467
1919	96,115	87,988
1920	101,730	89,444
1921	147,036	55,286
1922	148,497	37,420
1923	98,745	17,808
1924	¹ 345,280	¹ 55,988
1925	76,285	22,771
1926	78,060	57,561
1927	75,000	11,620
1928	135,000	115,137
1929	¹ 137,619	75,407
1930	65,000	65,000
1931	67,500	67,500
1932	63,700	63,700
1933	56,767	56,767
1934	59,534	59,534
1935	67,500	67,500
1936	71,304	71,304
1937	49,049	49,049
1938	71,255	71,255
1939	61,870	61,870
1940	64,000	64,000
1941	45,088	45,088
1942	43,000	43,000
1943	49,262	49,262
1944	62,296	62,296
1945	62,200	62,200
1946	61,458	61,458
1947	61,154	61,154
1948	58,269	58,269
1949	4,873	4,873
1950	6,000	6,000
1951	4,100	4,100
1952 ²	2,051	2,051
Total	1,909,539	1,909,539

¹ Decrease.

² Project assumed full responsibility for all operation and maintenance costs after 1952.

BITTER ROOT PROJECT

MONTANA

Rehabilitation of the irrigation system of the Bitter Root Irrigation District in Missoula and Ravalli Counties, Mont., and the liquidation of its private indebtedness were authorized by the act of July 3, 1930 (46 Stat. 852).

Facilities to serve land in the Bitter Root project were originally constructed with private capital. Water is stored in Lake Como Reservoir, on Rock Creek, one of the tributaries of Bitterroot River. Diversion is accomplished by the Rock Creek diversion dam, 1 mile below Lake Como.

When the Bitter Root Irrigation District was organized in 1920, there were 18,240 acres of land within the District classified as irrigable, and of this amount 16,095 acres were actually irrigated. In 1969, the irrigable area for service was 16,665 acres and the irrigated area consisted of 16,110 acres. The gross value of crops produced on these irrigated lands in that same year was \$691,171 and the average value per irrigated acre was \$42.90.

The District has always operated and maintained the irrigation system.

Repayment contracts.—The total original cost incurred by the United States in rehabilitating the project irrigation system and liquidation of the private indebtedness of the Bitter Root Irrigation District was \$747,641. In 1936, \$200,000 was added for rehabilitation. The balance of the total cost, \$7410, was for financial adjustment investigations and contract negotiation leading to the 1948 repayment contract. By approving this amendatory repayment contract, Congress established the total obligation of the District at \$952,741, which included \$5,100 toward the cost of writing the amendatory contract to be repaid by the District. The excess cost of \$2,310 not covered by the contract was charged off by Congress by Public Law 289, 83rd Congress, 2d session (act of January 30, 1954). This contract also included provision for expenditure of not more than \$100,000 for additional

rehabilitation work by the United States, which increased the total obligation to \$1,052,741.

A contract dated December 28, 1956, provided for a rehabilitation program of \$225,000 and the latest contract with the District dated July 27, 1962, provided for another rehabilitation program of \$510,000, making a total repayment ceiling of \$1,787,741. This ceiling was reduced to \$1,787,645 when the actual rehabilitation costs were announced to the District by letter of May 14, 1968.

The original repayment contract with the Bitter Root Irrigation District was signed on August 24, 1931. This contract provided \$1,250,000 of Federal funds, of which not to exceed \$500,000 would be used by the United States to retire the bonded and other outstanding indebtedness of the District, and the balance remaining of \$750,000 would be used to rehabilitate the irrigation system for the District. A contract dated March 17, 1936, provided for expenditure by the United States of an additional \$200,000 to rehabilitate the system of the District. An amendatory contract dated September 16, 1948, canceled payment of interest by the District on the amount advanced initially to liquidate its indebtedness, canceled all interest on delinquencies to the date of the contract, and rescheduled annual payments by the District on the basis of water-user repayment ability. Contract also provides that a maximum of \$100,000 can be spent by the United States to rehabilitate the irrigation system. Amounts expended under this provision are to be added to the total construction obligation and repaid at the same rate as provided for the other portions of the construction obligation. The latter contract was approved by act of Congress on May 6, 1949 (Public Law 56, 81st Cong., 1st sess.).

CONTRACTS AND NOTICE

1931, August 24: Contract with Bitter Root Irrigation District. Repay indebtedness and repair system. Seven hundred and fifty thousand dollars maximum to be spent by United States. Interest at 4 percent on all advances.

Interest only to be paid first 5 years, then obligation in 35 amortized installments. Irrigable acreage on date of contract was 16,665 acres.

1936, March 17: Contract with Bitter Root Irrigation District. Two hundred thousand dollars additional provided for rehabilitation of the irrigation system. Also \$43,247.81 in delinquent interest funded with original obligation. Interest payments no longer required on funds advanced for rehabilitation. Added amount to be repaid in 40 equal annual installments.

1948, September 16: Contract Ilr-1533 with Bitter Root Irrigation District. Canceled interest payments on all advanced funds, including \$43,247.81 previously funded. Cost of financial adjustment investigation, \$5,100, added to construction obligation. Installments scheduled at \$16,665 annually, varied by normal and percentage and the parity ratio for feed grains, hay, and dairy products. Installments may vary from a minimum of 15 percent to a maximum of 200 percent of the base rate. Irrigable acreage on date of contract was 16,665 acres.

1956, December 28: Contract 14-06-100-1097 with Bitter Root Irrigation District for rehabilitation and betterment work not to exceed \$225,000. First installment due July 1, 1958, in the amount of \$5,625 and each year thereafter until final costs are determined.

1962, July 27: Contract 14-06-100-2496 with Bitter Root Irrigation District for rehabilitation and betterment work not to exceed \$510,000. First installment due July 1, 1966, in amount of \$2,710. Thirty-two annual installments at this rate, then \$8,335 per annum after the 1956 contract pays out. This annual installment continues until the 1948 contract pays out, then the annual installment is \$25,000 until the obligation is paid out. Installments will be varied by the normal and percentage and parity ratio for feed grains, hay, and dairy products. Installments are due on July 1 of each year.

1968, May 14: Actual rehabilitation and betterment cost notice. Actual costs under the \$100,000 limitation in 1948 contract were \$100,000. A maximum obligation of \$225,000 under the 1956 contract was reduced to \$224,903.66, the actual cost. Actual costs under the 1962 contract were

\$516,705 or \$6,705 in excess of the contract ceiling. The excess costs of \$6,705 were collected from the District and identified as a contribution.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,787,645
Total matured charges	580,576
Total matured charges repaid	¹ 580,576
Total matured charges unpaid	0

¹ Excludes 1970 payment of \$22,478, received in fiscal year 1969.

Payout schedule.—Payout is estimated to be completed in about 49 years, commencing in 1948 by payments of \$16,665, subject to annual adjustment by application of the normal and percentage plan plus parity. Payout under the 1956 contract will require 40 years, beginning in 1958. Annual installments are \$5,625 for 11 years, \$5,622 for 28 years, and a final installment of \$5,612.66. Payout under the 1962 contract is estimated to be completed in about 51 years, commencing in 1966 at 32 annual installments of \$2,710, two installments of \$8,335, and about 17 installments of \$25,000.

Cost and repayment allocations:

Original construction cost	\$955,051
Rehabilitation and betterment work:	
Irrigation facilities	97,822
Deferred maintenance	743,787
Total costs	<u>1,796,660</u>

Allocation:

Reimbursable irrigation—contract	1,787,645
Reimbursable irrigation—contribution	6,705
Nonreimbursable irrigation	<u>2,310</u>

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1937	\$1,464,279	\$36,122		\$36,122	\$18,025		\$18,025	\$18,025
1938	1,464,279	36,123		36,123	18,026		18,026	36,051
1939	1,464,279	36,122		36,122	18,061		18,061	54,112
1940	1,464,279	18,735	¹ - \$45,648	- 26,913	18,735	\$8,607	27,342	81,454
1941	1,464,279	20,561		20,561	20,561		20,561	102,015
1942	1,464,279	41,122		41,122	12,143		12,143	114,158
1943	1,464,279	41,122		41,122	12,143		12,143	126,301
1944	1,464,279	41,123		41,123	17,561		17,561	143,862
1945	1,464,279	41,122		41,122	19,276		19,276	163,138
1946	1,464,279	41,122		41,122	16,878		16,878	180,016
1947	1,464,279	41,122		41,122	19,786		19,786	199,802
1948	1,464,279	41,122		41,122	16,603		16,603	216,405
1949	1,464,279	41,122		41,122	16,665		16,665	233,070
1950	² 992,741	16,665	³ - 168,602	- 151,937	16,665	⁴ 29,320	45,985	279,055
1951	992,741	11,759		11,759	11,759		11,759	290,814
1952	992,741	17,635		17,635	17,635		17,635	308,449
1953	992,741	13,645		13,645	13,645		13,645	322,094
1954	992,741	16,118		16,118	16,118		16,118	338,212
1955	⁵ 1,052,741	12,799		12,799	12,799		12,799	351,011
1956	1,052,741	9,719		9,719	9,719		9,719	360,730
1957	⁶ 1,277,741	10,796		10,796	10,796		10,796	371,526
1958	1,277,741	11,399		11,399	11,399		11,399	382,925
1959	1,277,741	14,504		14,504	14,504		14,504	397,429
1960	1,277,741	16,504		16,504	16,504		16,504	413,933
1961	1,277,741	16,277		16,277	16,277		16,277	430,210
1962	1,277,741	19,191		19,191	19,191		19,191	449,401
1963	⁶ 1,787,741	23,060		23,060	23,060		23,060	472,461
1964	1,787,741	16,667		16,667	16,667		16,667	489,128
1965	1,787,741	12,558		12,558	12,558		12,558	501,686
1966	1,787,741	16,844		16,844	16,844		16,844	518,530
1967	1,787,741	20,381		20,381	20,381		20,381	538,911
1968	⁷ 1,787,645	14,142		14,142	14,142		14,142	553,053
1969	1,787,645	27,523		27,523	⁸ 27,523		27,523	580,576
Total		794,826	- 214,250	580,576	542,649	37,927	580,576	

¹ Decrease due to deferment of charges under Relief Act.² Obligation of water users reduced by amendatory contract Ilr-1533, dated Sept. 16, 1948, by eliminating interest being charged on amount expended for liquidation of bonded indebtedness of District. Obligation reflects \$40,000 of the \$100,000 for current and anticipated rehabilitation and betterment work.³ Decrease to reflect adjustment under new contract whereby delinquencies are funded.⁴ Application of prior interest payments on liquidated bonded indebtedness to construction obligation.⁵ Obligation increased to reflect rehabilitation and betterment work.⁶ Excludes 1970 payment of \$22,498, received in fiscal year 1969.⁷ Obligation decreased to reflect actual cost of rehabilitation and betterment work.

BOISE PROJECT

IDAHO-OREGON

Construction of the Boise project was authorized for (a) Arrowrock division on March 27, 1905, by the Secretary of the Interior under provisions of the Reclamation Act of June 17, 1902 (32 Stat. 388); (b) Arrowrock Dam by the Secretary on January 6, 1911; (c) Black Canyon Dam power development, act of June 5, 1924; (d) Deadwood Dam and Reservoir by the President on October 19, 1928; (e) Payette division on December 19, 1935, by the President; and (f) Anderson Ranch Dam and Reservoir by transmission of the report of feasibility to the President on June 25, 1940, and to Congress on August 12, 1940, by the Secretary of the Interior under Reclamation Project Act of 1939 (53 Stat. 1193).

The Boise project development comprises irrigation, storage, diversion and distribution works which, together with auxiliary power development, provide water for lands in southwestern Idaho and eastern Oregon. When considered from the standpoint of lands served with irrigation water, the project falls naturally into Arrowrock and Payette divisions, as described below.

The estimated total cost of the project is \$67,651,447 excluding \$1,515,621 funded operating charges, interest and penalties.

Feature costs:

Arrowrock division:

Anderson Ranch Dam and Powerplant	\$29,885,441
Arrowrock Dam	5,321,705
Deer Flat Dam	1,067,836
Boise River Dam	371,315
Boise River Powerplant	201,038
Canals, drainage, miscellaneous facilities	9,490,559

Subtotal, Arrowrock division	46,337,894
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Payette division:

Cascade Dam	8,462,148
Black Canyon Dam and Powerplant	2,192,117
Deadwood Dam	1,398,298
C-line transmission	166,652

Gem capacitors	18,857
Irrigation facilities, first unit	505,659
Irrigation facilities, second unit	9,137,894
Black Canyon Pump Plant—Emmett	
Irrigation District	134,838
Other costs—Emmett Irrigation District	191,187
Subtotal, Payette division	22,207,650
General property	1,714
Operation and maintenance equipment	137,665
Transmission facilities—transferred to BPA	482,145
Total costs and funded charges	69,167,068

Allocation of costs:

Reimbursable costs:

Irrigation	\$45,642,190
Irrigation, funded operating charges	3,108,283
Power, excluding \$2,385,233 for irrigation	5,373,401
Flood control	19,421

Subtotal	54,143,295
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Nonreimbursable costs:

Flood control	14,937,080
Irrigation costs charged off	86,693

Total cost	69,167,068
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Repayments and other credits:

Repayment realized:

Repayment contracts matured	\$19,302,551
Contributions	3,882

Excess of income over expense:

Power	4,116,615
Irrigation	1,446,314

Repayment from other sources:

Contributions	7,184
Other	249,916
Reserve for depreciation	779,422
Reserve for depreciation BPA, transfer	33,317

Subtotal, realized	25,939,201
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Anticipated future repayment:

Repayment contracts unmatured	11,375,952
Excess of income over expense:	

Power revenues—Bonneville Power

Administration	11,051,746
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Unsold space:

REPAYMENT OF RECLAMATION PROJECTS

Cascade Reservoir	4,396,655
Deadwood Reservoir	930,913
Total repayment	<u>53,694,467</u>
Other credits:	
BPA repayment	448,828
Nonreimbursable irrigation costs	86,693
Nonreimbursable flood control	14,937,080
Subtotal, other credits	<u>15,472,601</u>
Total repayment and other credits	<u>69,167,068</u>

Power generated at the three powerplants (Anderson Ranch, Boise River Diversion, and Black Canyon Dams) is used primarily to serve project pumping loads on the Boise and Owyhee projects. A substantial block of power is also furnished to the Minidoka project and is used to supplement power generated and sold on that project. Power is also furnished one REA-financed cooperative. Additional secondary energy is sold to the Idaho Power Co. The Idaho Power Co. also furnishes transmission services from the project facilities to most of the powerloads.

Power and energy in excess of that required for irrigation pumping and incidental uses is delivered to Bonneville Power Administration for marketing.

ARROWROCK DIVISION

Lands in the Arrowrock division are bounded generally by the Snake and Boise Rivers and lie in the Boise Valley. Approximately 60 percent of the irrigated lands within the division receive a full water supply and the other 40 percent receive a supplemental supply. In 1969, an irrigable area of 164,680 acres had full water supply service, and 138,044 acres were irrigated, producing a gross crop value of \$21,030,471 for an average value of \$152.35 per acre. The supplemental supply lands totaled 111,115 irrigable acres for service and 102,440 acres irrigated with a gross crop value of \$14,283,610 and an average value of \$139.43 per irrigated acre.

Project facilities of this division are Anderson Ranch Dam and Reservoir, Arrowrock Dam and Reservoir, both on the Boise River; the Boise River Diversion Dam which heads the main canal which flows into Lake Lowell, an offstream reservoir; and canals, laterals, and drains to serve the project. Hydroelectric installations include the Anderson Ranch and Boise River diversion powerplants and transmission facilities.

Anderson Ranch Dam and Reservoir, for purposes of irrigation allocation and repayable obligations, is

carried as a separate unit from the rest of Arrowrock division.

The repayable obligation of the water users in the Arrowrock division now totals \$15,872,807. The entire amount, with exception of congressional chargeoffs, is repayable under the terms of the repayment contracts with districts and individual water users within the division.

Operation and maintenance of the division, with exception of reserved works and power facilities, was transferred to a board of control in April 1926. These reserved works and power facilities consist of Boise River Diversion Dam and Powerplant, Arrowrock Dam and Reservoir, Anderson Ranch Dam and Reservoir and Powerplant, and the transmission facilities.

PUBLIC NOTICES AND CONTRACTS

- 1915, June 1: Contract Ilr-414 with Nampa-Meridian Irrigation District for construction of drains and for storage in Arrowrock Reservoir. Irrigable area on date of contract was 24,557 acres.
- 1915, June 15: Contract Ilr-415 with Pioneer Irrigation District for storage in Arrowrock Reservoir and for drainage work. Irrigable area on date of contract was 34,400 acres.
- 1917, July 2: Public notice. Construction charge \$80 per acre, payable in 20 graduated installments.
- 1917, August 13: Contract Ilr-412 with Farmers Union Ditch Co. Ltd., for Arrowrock Reservoir storage. Irrigable area on date of contract was 8,100 acres.
- 1917, December 3: Contract Ilr-411 with Farmers Cooperative Ditch Co. for Arrowrock Reservoir storage. Irrigable area on date of contract was 15,500 acres.
- 1918, February 9: Contract Ilr-416 with Settlers Irrigation District for Arrowrock Reservoir storage. Irrigable area on date of contract was 12,000 acres.
- 1918, February 15: Contract Ilr-409 with Riverside Irrigation District and Big Bend Irrigation District for construction of drains and for storage in Arrowrock Reservoir. Combined irrigable area on date of contract was 14,385 acres.
- 1918, April 1: Public notice. Rate and terms same as 1917 public notice.
- 1919, February 18: Contract Ilr-416 with Settlers Irrigation District for water right at \$70 per acre for 518.13 acres of project land.
- 1919, March 7: Public notice. Rate and terms same as 1917 public notice.
- 1924, January 2: Public notice. Construction charge \$77.40 per acre, payable in 20 graduated installments.
- 1926, March 1: Contract Ilr-16 with Riverside Irrigation District, Ltd., for removal of slides.
- 1926, March 25: Contract Ilr-409 with Big Bend Irrigation District; March 20, Ilr-54 with Boise-Kuna Irrigation District; March 2, Ilr-414 with Nampa-Meridian Irrigation District; September 27, Ilr-54 with New York Irrigation District; and April 6, Ilr-417 with Wilde Irrigation District, under which Districts assumed obligations of individual water users. Contracts provide also

for additional drainage work and for funding of delinquent operation and maintenance charges and penalties, and penalties on delinquent construction charges. Payments of construction charges by Districts to be made semiannually on a crop production basis (5 percent plan—Fact Finders' Act of 1924).

1951, November 30: Amendatory repayment contract I74r-1685 with Big Bend Irrigation District, I74r-1682 with Boise-Kuna Irrigation District, I74r-1683 with Nampa-Meridian Irrigation District, April 3, I74r-1566 with Wilder Irrigation District, provided for payment under the normal and percentage plan of Reclamation Project Act of 1939. Construction charges except for Big Bend due March 15 and July 1. Big Bend due June 1 and December 1. O&M due May 1.

1956, June 18: Contract 14-06-100-1005 with Big Bend Irrigation District; June 19, contract 14-06-100-1007 with Nampa-Meridian Irrigation District, and contract 14-06-100-1006 with Wilder Irrigation District; June 25, con-

tract 14-06-100-1008 with Boise-Kuna Irrigation District, and contract 14-06-100-1009 with New York Irrigation District for rehabilitation and betterment of the New York Canal. Construction charges completely repaid for all Districts except Big Bend, Boise-Kuna, Nampa-Meridian, Wilder, Riverside, and New York.

1956, September 4: Amendatory repayment contract with the Riverside Irrigation District for deferment of delinquent construction repayment installments due under contract of March 1, 1926. Installments due December 1.

Status of the Arrowrock division repayment contracts:

Total value of contracted repayment	\$15,872,807
Total matured charges	14,272,541
Total matured charges repaid	14,272,541
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—ARROWROCK DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918-----	\$9,999,756	\$222,487		\$222,487	\$200,208		\$200,208	\$200,208
1919-----	11,785,459	280,362		280,362	255,523		255,523	455,731
1920-----	11,971,064	217,364		217,364	209,157	\$27,663	236,820	692,551
1921-----	12,046,478	208,339		208,339	157,595	26,726	184,321	876,872
1922-----	11,845,423	416,337	¹ \$37,310	379,027	241,239	¹ 6,273	234,966	1,111,838
1923-----	12,167,269	419,291	1,331	420,622	193,443	86,691	280,134	1,391,972
1924-----	12,197,519	660,615	261	660,876	128,388	100,489	228,877	1,620,849
1925-----	12,186,212	683,793	¹ 19,244	664,549	119,972	106,529	226,501	1,847,350
1926-----	12,187,193	689,009	¹ 260	688,749	100,790	19,832	120,622	1,967,972
1927-----	12,186,988	209,445	¹ 1,772,340	¹ 1,562,895	205,973	675	206,648	2,174,620
1928-----	² 13,002,561	367,935	¹ 512	367,423	368,847	326	369,173	2,543,793
1929-----	13,002,450	379,532	¹ 297	379,235	374,849	989	375,838	2,919,631
1930-----	13,004,613	365,916	¹ 447	365,469	367,583		367,583	3,287,214
1931-----	13,004,613	343,225		343,225	342,250		342,250	3,629,464
1932-----	13,004,613	³ 198,908		198,908	189,448		189,448	3,818,912
1933-----	13,004,613	³ 34,446	¹ 34,598	¹ 152	26,913	¹ 12,511	14,402	3,833,314
1934-----	13,050,739	³ 7,318	¹ 24,521	¹ 17,203	7,318	¹ 24,245	¹ 16,927	3,816,387
1935-----	13,052,295	³ 6,951		6,951	6,951		6,951	3,823,338
1936-----	13,027,961	³ 5,554		5,554	5,554		5,554	3,828,892
1937-----	13,027,983	³ 15,221		15,221	14,015		14,015	3,842,907
1938-----	13,027,983	272,462		272,462	269,570		269,570	4,112,477
1939-----	13,027,983	271,697		271,697	269,286	481	269,767	4,382,244
1940-----	13,027,983	266,079		266,079	263,662		263,662	4,645,906
1941-----	13,027,983	256,682		256,682	253,923		253,923	4,899,829
1942-----	13,027,983	251,813		251,813	249,751	5	249,756	5,149,585
1943-----	13,027,983	264,561		264,561	262,143		262,143	5,411,728
1944-----	13,027,983	243,070		243,070	240,659		240,659	5,652,387
1945-----	13,027,983	310,039		310,039	307,628	7	307,635	5,960,022
1946-----	13,027,983	281,260		281,260	278,848	1	278,849	6,238,871
1947-----	⁴ 13,687,110	401,847	165,532	567,379	399,435	165,532	564,967	6,803,838
1948-----	13,687,110	440,680		440,680	438,272		438,272	7,242,110
1949-----	13,687,110	483,148		483,148	480,730		480,730	7,722,840
1950-----	13,687,110	539,781		539,781	537,364		537,364	8,260,204
1951-----	13,687,110	729,106		729,106	714,397	13,500	727,897	8,988,101
1952-----	13,682,811	331,786		331,786	330,577	1,208	331,785	9,319,886
1953-----	13,682,811	307,210		307,210	307,210		307,210	9,627,096
1954-----	13,682,811	179,234		179,234	179,234		179,234	9,806,330
1955-----	13,682,811	231,034		231,034	231,034		231,034	10,037,364
1956-----	13,682,811	221,044		221,044	176,605		176,605	10,213,969
1957-----	15,907,811	246,225	⁵ 33,768	212,457	290,664		290,664	10,504,633
1958-----	15,907,811	232,754		232,754	201,619		201,619	10,706,252
1959-----	15,907,811	255,420		255,420	286,555		286,555	10,992,807
1960-----	15,907,811	390,713		390,713	355,386		355,386	11,348,193
1961-----	15,907,811	380,536		380,536	415,863		415,863	11,764,056
1962-----	15,907,811	386,611		386,611	386,611		386,611	12,150,667
1963-----	15,907,811	344,366		344,366	304,213		304,213	12,454,880
1964-----	15,907,811	321,338		321,338	287,360	40,153	327,513	12,782,393
1965-----	15,907,811	299,956		299,956	299,956	33,978	333,934	13,116,327
1966-----	15,872,807	311,247		311,247	311,247		311,247	13,427,574
1967-----	15,872,807	312,911		312,911	312,911		312,911	13,740,485
1968-----	15,872,807	285,978		285,978	285,978		285,978	14,026,463
1969-----	15,872,807	246,078		246,078	246,078		246,078	14,272,541
Total-----		16,028,714	-1,756,173	14,272,541	13,690,785	581,756	14,272,541	

¹ Decrease. Decreases are due mainly to cancellation of water-right applications. Large decrease in 1927 due to cancellation of delinquent accounts and funding of penalties under 1926 contracts. Decreases in 1933 and 1934 due to deferral of charges under moratorium acts.

² Increase in obligation due to funding of delinquent operation and maintenance charges and penalties and construction penalties.

³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Charges deferred for calendar years 1931,

1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 2681, 2682, 2683, 2684, 2685, 2686, 2687, 2688, 2689, 2690, 2691, 2692, 2693, 2694, 2695, 2696, 2697, 2698, 2699, 2700, 2701, 2702, 2703, 2704, 2705, 2706, 2707, 2708, 2709, 2710, 2711, 2712, 2713, 2714, 2715, 2716, 2717, 2718, 2719, 2720, 2721, 2722, 2723, 2724, 2725, 2726, 2727, 2728, 2729, 2730, 2731, 2732, 2733, 2734, 2735, 2736, 2737, 2738, 2739, 2740, 2741, 2742, 2743, 2744, 2745, 2746, 2747, 2748, 2749, 2750, 2751, 2752, 2753, 2754, 2755, 2756, 2757, 2758, 2759, 2760, 2761, 2762, 2763, 2764, 2765, 2766, 2767, 2768, 2769, 2770, 2771, 2772, 2773, 2774, 2775, 2776, 2777, 2778, 2779, 2780, 2781, 2782, 2783, 2784, 2785, 2786, 2787, 2788, 2789, 2790, 2791, 2792, 2793, 2794, 2795, 2796, 2797, 2798, 2799, 2800, 2801, 2802, 2803, 2804, 2805, 2806, 2807, 2808, 2809, 2810, 2811, 2812, 2813, 2814, 2815, 2816, 2817, 2818, 2819, 2820, 2821, 2822, 2823, 2824, 2825, 2826, 2827, 2828, 2829, 2830, 2831, 2832, 2833, 2834, 2835, 2836, 2837, 2838, 2839, 2840, 2841, 2842, 2843, 2844, 2845, 2846, 2847, 2848, 2849, 2850, 2851, 2852, 2853, 2854, 2855, 2856, 2857, 2858, 2859, 2860, 2861, 2862, 2863, 2864, 2865, 2866, 2867, 2868, 2869, 2870, 2871, 2872, 2873, 2874, 2875, 2876, 2877, 2878, 2879, 2880, 2881, 2882, 2883, 2884, 2885, 2886, 2887, 2888, 2889, 2890, 2891, 2892, 2893, 2894, 2895, 2896, 2897, 2898, 2899, 2900, 2901, 2902, 2903, 2904, 2905, 2906, 2907, 2908, 2909, 2910, 2911, 2912, 2913, 2914, 2915, 2916, 2917, 2918, 2919, 2920, 2921, 2922, 2923, 2924, 2925, 2926, 2927, 2928, 2929, 2930, 2931, 2932, 2933, 2934, 2935, 2936, 2937, 2938, 2939, 2940, 2941, 2942, 2943, 2944

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—ARROWROCK DIVISION

Fiscal year	Accruals	Collections
1918		
1919	\$208,828	\$171,669
1920	296,761	272,202
1921	409,710	328,279
1922	504,562	318,211
1923	421,457	347,430
1924	393,335	279,179
1925	364,879	158,277
1926	262,298	122,012
1927	¹ 842,385	21,469
1928	¹ 6,146	¹ 5,888
1929	37,526	37,742
1930	26,768	27,011
1931	9,519	850
1932	12,886	15,843
1933	6,770	12,147
1934	8,052	8,386
1935	8,346	8,346
1936	17,300	17,300
1937	9,104	9,104
1938	7,487	7,487
1939	12,386	12,386
1940	10,221	10,221
1941	9,698	9,697
1942	10,354	10,355
1943	10,655	10,655
1944	12,011	12,011
1945	12,183	12,183
1946	10,245	10,246
1947	11,934	11,934
1948	15,837	15,837
1949	24,013	24,013
1950	17,751	17,751
1951	28,472	28,472
1952	21,975	21,975
1953	19,902	19,902
1954	26,446	31,613
1955	29,369	29,702
1956	31,174	31,174
1957	34,138	39,221
1958	42,563	43,630
1959	68,004	69,088
1960	37,564	37,264
1961	40,988	31,722
1962	39,516	48,134
1963	46,310	48,191
1964	60,857	47,190
1965	52,947	52,947
1966	47,807	47,807
1967	55,088	55,088
1968	66,075	66,075
1969	66,144	66,144
Total	3,129,684	3,129,684

¹ Decrease.

Anderson Ranch Dam and Reservoir.—The Anderson Ranch Dam and Reservoir was constructed for the benefit of the Boise project and private irrigation districts in the Boise Valley. Power is also generated at the dam. The total cost allocated to irrigation now

under contract totals \$4,966,165, and is to be repaid in full by the various contractors.

Status of the Anderson Ranch Dam and Reservoir repayment contracts:

Total value of contracted repayment	\$4,966,165
Total matured charges	2,263,016
Total matured charges repaid	2,263,016
Total matured charges unpaid	0

CONTRACTS—ANDERSON RANCH DAM

- 1941, July 2: Contract I1r-1362 with Nampa-Meridian Irrigation District, payable in 40 annual installments.
- 1941, August 1: Contract I1r-1360 with Boise-Kuna Irrigation District, payable in 40 annual installments.
- 1941, August 1: Contract I1r-1361 with Wilder Irrigation District, payable in 40 annual installments.
- 1941, August 7: Contract I1r-1359 with New York Irrigation District, payable in 40 annual installments.
- 1943, June 5: Contract I1r-1477 with Farmers Union Ditch Co., Ltd., payable in 40 annual installments.
- 1943, July 26: Contract I1r-1478 with Settlers Irrigation District, payable in 40 annual installments.
- 1943, November 10: Contract I1r-1479 with Pioneer Irrigation District, payable in 40 annual installments.
- 1944, October 5: Contract I1r-1480 with New Dry Creek Ditch Co., payable in 40 annual installments.
- 1945, February 26: Contract I1r-1476 with South Boise Mutual Irrigation Co., Ltd., payable in 40 annual installments.
- 1945, June 25: Contract I1r-1481 with Boise Valley Irrigation Ditch Co., payable in 40 annual installments.
- 1946, December 11: Contract I1r-1544 with Big Bend Irrigation District, payable in 40 annual installments.
- 1948, January 20: Contract I1r-1512 with Ballentyne Ditch Co., payable in 40 annual installments.
- 1951, April 3: Contract I74r-1566, amendment to original contract with Wilder Irrigation District rescheduling payments.
- 1951, November 30: Contract I74r-1682, amendment to original contract with Boise-Kuna Irrigation District rescheduling payments.
- 1951, November 30: Contract I74r-1683, amendment to original contract with Nampa-Meridian Irrigation District rescheduling payments.
- 1951, November 30: Amendment to original contract I1r-1544 with Big Bend Irrigation District rescheduling payments.
- 1951, December 17: Contract I74r-1691, amendment to original contract with Settlers Irrigation District rescheduling payments.
- 1954, July 7: Contract 14-06-100-525 with Capital View Irrigation District, payable in 40 annual installments.
- 1961, December 27: Contract 14-06-100-2284 with Pioneer Ditch Co., payable in 40 annual installments.

Construction installments payable one-half on July 1 and one-half on December 31; O&M charges payable on May 1. These dates are effective for all above contracts on Anderson Ranch Dam.

CONSTRUCTION REPAYMENT HISTORY—ANDERSON RANCH DAM AND RESERVOIR

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1942	¹ \$5,312,127	\$33,106		\$33,106	\$33,106		\$33,106	\$33,106
1943	5,312,127	33,107		33,107	33,107		33,107	66,213
1944	5,312,127	33,106		33,106	33,106		33,106	99,319
1945	5,312,127	33,106		33,106	33,106		33,106	132,425
1946	5,312,127	33,107		33,107	33,107		33,107	165,532
1947	² 4,650,000		² - \$165,532	-165,532		² - \$165,532	-165,532	0
1948	³ 5,085,705							
1949	³ 5,145,505							
1950	⁴ 5,145,737							
1951	5,145,737	32,489		32,489	32,114		32,114	32,114
1952	5,145,737	81,887		81,887	81,323		81,323	113,437
1953	5,145,737	127,050		127,050	127,767		127,767	241,204
1954	5,145,737	125,951		125,951	126,173		126,173	367,377
1955	³ 5,146,511	126,535		126,535	126,455		126,455	493,832
1956	5,146,511	126,134		126,134	106,644		106,644	600,476
1957	5,146,511	125,130		125,130	141,598		141,598	742,074
1958	5,146,511	126,134		126,134	125,291	3,102	128,393	870,467
1959	5,146,511	126,135		126,135	126,055	843	126,898	997,365
1960	5,146,511	126,134		126,134	111,603	80	111,683	1,109,048
1961	⁵ 4,962,538	123,644		123,644	123,562	14,531	138,093	1,247,141
1962	4,966,165	124,261		124,261	123,803	82	123,885	1,371,026
1963	4,966,165	126,511		126,511	109,482	458	109,940	1,480,966
1964	4,966,165	129,967		129,967	112,931	17,029	129,960	1,610,926
1965	4,966,165	128,689		128,689	128,231	17,036	145,267	1,756,193
1966	4,966,165	125,690		125,690	125,312	458	125,770	1,881,963
1967	4,966,165	125,648		125,648	125,568	378	125,946	2,007,909
1968	4,966,165	129,304		129,304	129,224	80	129,304	2,137,213
1969	4,966,165	125,723		125,723	125,723	80	125,803	2,263,016
Total		2,428,548	-165,532	2,263,016	2,374,391	-111,375	2,263,016	

¹ The total obligation to repay includes \$662,127.46, representing the cost of repairs, resurfacing, and improvement of Arrowrock Dam which under the act of Apr. 22, 1940 (54 Stat. 155), is repayable in 20 equal installments beginning in 1942. The cost of this work was included in the cost of Anderson Ranch Dam and Reservoir until 1947.

² Reduced by cost Arrowrock repairs which are now included in Arrowrock division.

³ Inclusion of additional construction contracts negotiated.

⁴ Contract amounts adjusted to maximum amounts in accordance with contract provisions.

⁵ Final repayable cost established exclusive of water rental revenue.

PAYETTE DIVISION

Lands in the Payette division are located in the Lower Payette River Valley and along the north slope of the Boise Valley. The lands are irrigated with water from the Payette River and surplus drainage from the Arrowrock division. In 1969, the irrigable area for service of full supply lands totaled 60,081 acres, of which 52,642 acres were irrigated with a gross crop value of \$7,085,857 and an average value per irrigated acre of \$134.60. The supplemental supply lands totaled 54,250 irrigable acres for service, of which 50,285 acres were irrigated with a gross crop value of \$10,271,625 and an average value per irrigated acre of \$204.27.

Project facilities are Deadwood Dam and Reservoir on the Deadwood River; Cascade Dam and Reservoir on the North Fork of the Payette River; Black Canyon Dam, which serves as a diversion structure; the Black Canyon main canal, which serves both Payette and

Boise Valley lands; the "C" line pump plant, which pumps water to about 25,000 acres of higher Payette division lands; and the necessary canals, laterals, and drains. Hydroelectric installations include the Black Canyon Powerplant and transmission facilities to serve the "C" line pump plant and intertie with private lines.

The repayable obligation of the water users in the Payette division now totals \$9,798,608. The entire amount is repayable under the terms of the existing contracts with district and individual water users.

The Notus or First unit of Payette division, Black Canyon Irrigation District, completed repayment of its obligation (\$547,947) in fiscal year 1961.

Operation and maintenance of the division, except for the reserved works, is carried on by the water users organizations. The reserved works are the Cascade and Deadwood Dams and storage reservoirs, the Black Canyon Diversion Dam, and the power facilities.

Repayment contracts.—The existing contract with

the Black Canyon Irrigation District involves the repayable allocation of construction cost of the irrigation and storage works and one-fourth the cost of rehabilitation and betterment of Black Canyon Dam. The Emmett Irrigation District contract includes one-fourth the cost of rehabilitation and betterment of Black Canyon Dam.

Rehabilitation and betterment contracts.—Cost of rehabilitation and betterment of Black Canyon Dam will be repaid one-fourth by Black Canyon Irrigation District lands, one-fourth by Emmett Irrigation District lands, and one-half from power revenues.

CONTRACTS

- 1918, January 2: Contract with Black Canyon Irrigation District for water rights for 6,873.83 acres at \$70 per acre, 20 graduated installments.
- 1921, November 18: Contract IIR-251 with Emmett Irrigation District to repay one-half of construction cost of Black Canyon Dam and pumping plant in 20 graduated installments. Irrigable acreage on date of contract was 22,500.
- 1926, April 21: Contract IIR-251 with Black Canyon Irrigation District. Contract changed method of repayment to crop-production basis and funded delinquent charges and penalties. Irrigable acreage on date of contract was 6,326.
- 1927, October 3: Contract IIR-251 with Black Canyon Irrigation District for construction of Payette division. Irrigable acreage on date of contract was 6,844.
- 1929, September 18: Contract with Black Canyon Irrigation District for drainage work.
- 1932, June 30: Supplemental contract IIR-699 with Emmett Irrigation District extending time for repayment to 40 years, equal semiannual installments beginning 1932. Irrigable acreage on date of contract was 21,300.
- 1934, August 20: Contract with Black Canyon Irrigation District for drainage work.
- 1946, April 2: Contract I74r-203 with Drainage District No. 4 for drain construction.
- 1954, March 17: Contract 14-06-100-441, amendment to original contract with Drainage District No. 4 to increase contract amount.
- 1954, September 2: Contract 14-06-W-70, amendment to contract with Black Canyon Irrigation District to increase contract amounts and change method of payment.
- 1955, October 4: Contract 14-06-100-827, amendment to contract with Emmett Irrigation District to increase contract amounts. Construction charges due March 15 and June 30. O&M charges due January 1 and June 30.
- 1956, April 12: Supplement No. 1 to amendatory contract 14-06-W-70 with Black Canyon Irrigation District to conform its provisions to the rehabilitation and betterment program. Construction charges due March 15 and June 30. O&M charges due January 1 and June 30.
- 1956, June 4: Supplement No. 2 to amendatory contract 14-06-W-70 with Black Canyon Irrigation District to provide for payment for equipment and supplies transferred to District.

Since November 28, 1958, 16 contracts with the companies and individuals for storage in Deadwood and Cascade Reservoirs have been negotiated. Payout periods and dates of installments for construction and O&M charges vary according to terms of each contract.

Status of the Payette division repayment contracts:

Total value of contracted repayment	\$9,839,307
Total matured charges	2,766,769
Total matured charges repaid	2,766,769
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—NOTUS UNIT, BLACK CANYON IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1922	\$481,168							
1923	481,168	\$9,623		\$9,623	\$6,685		\$6,685	\$6,685
1924	481,168	9,623		9,623	4,963	\$ 613	5,576	12,261
1925	481,168	9,623		9,623				12,261
1926	481,168	9,623		9,623				12,261
1927	481,393	3,952	¹ - \$26,233	¹ 22,281	3,952		3,952	16,213
1928	493,162	8,421		8,421	8,421		8,421	24,634
1929	493,162	9,279		9,279	9,279		9,279	33,913
1930	493,162	9,968		9,968	9,968		9,968	43,881
1931	493,162	10,482		10,482	10,482		10,482	54,363
1932	532,074	² 5,327		5,327	5,327		5,327	59,690
1933	532,074	² 1,965		1,965	1,965		1,965	61,655
1934	533,578	(²)						61,655
1935	542,578	² 2,044		2,044	2,044		2,044	63,699
1936	541,747	(²)						63,699
1937	541,646	² 973		973				63,699
1938	541,646	12,186		12,186	10,990	973	11,963	75,662
1939	541,646	12,530		12,530	12,530		12,530	88,192
1940	541,646	12,529		12,529	11,556		11,556	99,748
1941	541,646	12,187		12,187	10,993	2,168	13,161	112,909
1942	541,646	12,186		12,186	10,989	1,195	12,184	125,093
1943	541,646	12,873		12,873	12,873	1,195	14,068	139,161
1944	541,646	14,763		14,763	14,763		14,763	153,924
1945	541,646	25,762		25,762	25,762		25,762	179,686
1946	541,646	21,981		21,981	21,981		21,981	201,667
1947	541,646	25,417		25,417	25,417		25,417	227,084
1948	541,646	28,168		28,168	15,279		15,279	242,363
1949	541,646	32,154		32,154	30,160		30,160	272,523
1950	541,646	35,831		35,831	33,992		33,992	306,515
1951	541,646	39,753		39,753	24,991		24,991	331,506
1952	541,646	42,849		42,849	20,710		20,710	352,216
1953	541,646	46,702		46,702	30,296		30,296	382,512
1954	541,646	48,354	³ - 66,753	- 18,399	19,683	³ 4,014	23,697	406,209
1955	547,947	20,600	⁴ - 27,754	- 7,154	20,600	⁴ 179	20,779	426,988
1956	547,947	20,600		20,600	20,600		20,600	447,588
1957	547,947	20,600		20,600	20,600		20,600	468,188
1958	547,947	20,600		20,600	20,600		20,600	488,788
1959	547,947	20,600		20,600	20,600		20,600	509,388
1960	547,947	20,600		20,600	20,600		20,600	529,988
1961	547,947	17,959		17,959	17,959		17,959	547,947
Total		668,687	- 120,740	547,947	537,610	10,337	547,947	

¹ Decrease. Cancellation of delinquent charges and funding of penalties under contract of Apr. 21, 1926.

² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar

years 1931, \$11,096; 1932, \$10,543; 1933, \$11,569; 1934, \$11,569; 1935, \$11,913; 1936, \$5,584.

³ Deferment and waiver of penalties.

⁴ Adjusted by amendatory contract.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—NOTUS UNIT

Fiscal year	Accruals	Collections
1922		
1923		
1924		
1925		
1926	\$18,723	\$14,676
1927	2,248	4,328
1928	¹ 14,305	¹ 12,338
Total	6,666	6,666

¹ Decrease. Cancellation of delinquent charges and funding of penalties under contract of Apr. 21, 1926.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—PAYETTE DIVISION—BLACK
CANYON IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1956	\$5,071	\$5,071
1957	8,990	8,990
1958	5,852	5,852
1959	9,299	9,299
1960	6,074	6,074
1961	7,903	7,903
1962	4,297	7,692
1963	8,789	13,060
1964	16,724	9,058
1965	9,361	9,361
1966	8,418	8,418
1967	14,537	14,537
1968	11,757	11,757
1969	12,983	12,983
Total	130,055	130,055

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—SECOND UNIT—PAYETTE DIVISION—EMMETT IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1927	\$1,200,000							
1928	1,200,000	\$24,000		\$24,000	\$10,726		\$10,726	\$10,726
1929	1,200,000	24,000		24,000	15,306		28,580	39,306
1930	1,200,000	24,000		24,000	24,000	\$13,274	32,694	72,000
1931	1,200,000	24,000		24,000	24,000	8,694	24,000	96,000
1932	1,200,000	48,000		48,000	12,760		12,760	108,760
1933	¹ 809,456	² 10,010	³ \$35,240	³ 25,230	10,010		10,010	118,770
1934	809,608	(²)						118,770
1935	810,360	² 10,010		10,010	10,010		10,010	128,780
1936	809,608	(²)	³ 10,010	³ 10,010				128,780
1937	809,608	² 10,010		10,010				128,780
1938	809,608	20,020		20,020	20,020		20,020	148,800
1939	809,608	20,020		20,020	20,020		20,020	168,820
1940	809,608	20,020		20,020	20,020		20,020	188,840
1941	809,608	20,020		20,020	20,020		20,020	208,860
1942	809,608	20,020		20,020	20,020		20,020	228,880
1943	809,608	20,020		20,020	20,020		20,020	248,900
1944	809,608	20,020		20,020	20,020		20,020	268,920
1945	809,608	20,020		20,020	20,020		20,020	288,940
1946	809,608	20,020		20,020	20,020		20,020	308,960
1947	809,608	20,020		20,020	20,020		20,020	328,980
1948	809,608	20,020		20,020	20,020		20,020	349,000
1949	809,608	20,020		20,020	20,020		20,020	369,020
1950	809,608	20,020		20,020	20,020		20,020	389,040
1951	809,608	20,019		20,019	20,019		20,019	409,059
1952	809,608	20,019		20,019	20,019		20,019	429,078
1953	809,608	20,020		20,020	20,020		20,020	449,098
1954	809,608	20,020		20,020	20,020		20,020	469,118
1955	809,608	20,020		20,020	20,020		20,020	489,138
1956	⁴ 1,507,093	20,020		20,020	20,020		20,020	509,158
1957	1,507,093	20,020		20,020	20,020		20,020	529,178
1958	1,507,093	20,020		20,020	20,020		20,020	549,198
1959	1,507,093	20,020		20,020	20,020		20,020	569,218
1960	1,507,093	20,020		20,020	20,020		20,020	589,238
1961	1,507,093	20,020		20,020	10,010		10,010	599,248
1962	1,507,093	20,019		20,019	20,019	10,010	30,029	629,277
1963	1,507,093	20,020		20,020	20,020		20,020	649,297
1964	1,507,093	20,020		20,020	20,020		20,020	669,317
1965	1,507,093	20,020		20,020	20,020		20,020	689,337
1966	1,507,093	20,020		20,020	20,020		20,020	709,357
1967	1,507,093	20,104	652	20,756	20,104	652	20,756	730,113
1968	1,507,093	20,104	24,247	44,351	20,104	24,247	44,351	774,464
1969	1,507,093	19,459		19,459	19,459		19,459	793,923
Total		814,274	-20,351	793,923	737,046	56,877	793,923	

¹ Obligation revised to actual cost of construction work.² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$10,161; 1933, \$20,020; 1934, \$20,020; 1935, \$20,020; 1936, \$10,010.³ Decrease. Due to cancellation of delinquent charges under 1932 contract, and in 1936 to deferred charges under moratorium act.⁴ Amendatory repayment contract executed.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—PAYETTE DIVISION—EMMETT
IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1927		
1928	\$16,347	\$16,287
1929	2,421	2,481
1930	6,690	6,690
1931	5,591	5,591
1932	2,396	2,396
1933	2,064	2,064
1934	2,897	2,897
1935	3,000	0
1936	1,629	4,629
1937	2,378	2,378
1938	1,217	1,217
1939	2,388	2,388
1940	1,692	1,692
1941	2,665	2,665
1942	2,388	2,388
1943	1,777	1,777
1944	2,104	2,104
1945	2,332	2,332
1946	2,101	2,101
1947	6,396	6,396
1948	6,259	6,259
1949	9,157	9,157
1950	8,534	8,534
1951	9,285	9,285
1952	9,000	9,000
1953	5,779	5,779
1954	7,400	7,400
1955	9,562	9,562
1956	2,869	2,869
1957	9,539	9,539
1958	10,847	10,847
1959	13,229	13,229
1960	11,002	11,002
1961	14,985	14,990
1962	6,503	10,221
1963	9,785	11,482
1964	21,843	16,423
1965	12,591	12,591
1966	11,114	11,114
1967	18,252	18,252
1968	19,613	19,613
1969	23,275	23,275
Total	320,896	320,896

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—BALANCE OF SECOND UNIT—PAYETTE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1946	\$7,000,000							
1947	¹ 7,036,500							
1948	7,036,500							
1949	7,036,500	\$23,123		\$23,123	\$23,123		\$23,123	\$23,123
1950	7,036,500	46,468		46,468	46,213		46,213	69,336
1951	7,036,500	70,523		70,523	70,268		70,268	139,604
1952	7,036,500	46,179		46,179	46,179		46,179	185,783
1953	7,036,500	46,179		46,179	46,179		46,179	231,962
1954	² 7,037,174	46,853		46,853	46,853		46,853	278,815
1955	³ 7,383,989	45,275	³ - \$11,155	34,120	45,275	³ - \$10,645	34,630	313,445
1956	7,383,989	45,275		45,275	45,275		45,275	358,720
1957	7,383,989	45,275	⁴ - 58,623	- 13,348	45,275	⁴ - 58,623	- 13,348	345,372
1958	7,383,989	45,275		45,275	45,275		45,275	390,647
1959	⁵ 7,391,505	45,463		45,463	45,463		45,463	436,110
1960	7,391,505	45,112		45,112	45,112		45,112	481,222
1961	⁵ 7,409,775	85,063		85,063	85,063		85,063	566,285
1962	⁵ 7,410,423	132,754		132,754	132,754		132,754	699,039
1963	⁵ 7,743,343	101,366		101,366	101,366		101,366	800,405
1964	7,743,343	101,650		101,650	101,650		101,650	902,055
1965	⁵ 7,748,593	104,453		104,453	104,453		104,453	1,006,508
1966	7,748,593	103,735		103,735	103,735		103,735	1,110,243
1967	⁵ 7,770,512	104,764		104,764	104,764		104,764	1,215,007
1968	⁵ 7,771,243	104,504		104,504	104,504		104,504	1,319,511
1969	⁵ 7,784,267	105,388		105,388	105,388		105,388	1,424,899
Total		1,494,677	- 69,778	1,424,899	1,494,167	- 69,268	1,424,899	

¹ Inclusion of contract with Drainage District No. 4.² Contract with Drainage District No. 4 adjusted to actual costs.³ Adjustments due to amendatory contract with Black Canyon Irrigation District and application of construction credits to operation and maintenance deficit.⁴ Construction charge collections reapplied to cover equipment in account 220.2.⁵ Increases due to sale of space in Deadwood and Cascade Reservoirs.

NOTE: Obligation of \$225 accrued and collected from M. M. Fuller in fiscal year 1924 excluded.

BOISE PROJECT REPAYMENT CONTRACTS, JUNE 30, 1969

District	Total obligation of water users	Matured value
Arrowrock division:		
Big Bend Irrigation District	\$176,917.08	\$117,985.04
Boise-Kuna Irrigation District	4,361,083.69	3,650,641.94
Nampa-Meridian Irrigation District	3,624,915.83	3,361,290.07
New York Irrigation District	687,179.31	571,126.92
Wilder Irrigation District	5,321,239.87	4,876,294.22
Other contractors	1,701,470.72	1,695,202.82
Subtotal	15,872,806.50	14,272,541.01
Payette division:		
Emmett Irrigation District	1,507,093.30	793,923.18
Black Canyon Irrigation District	7,894,761.94	1,867,793.86
Drainage District No. 4	37,174.31	28,299.31
Lower Payette Ditch Co.	116,000.00	23,200.00
Farmers Coop Irrigation Co.	216,920.00	43,384.00
Individuals	67,582.50	10,394.11
Subtotal	9,839,532.05	2,766,994.46
Anderson Ranch Dam:		
Boise-Kuna Irrigation District	1,322,464.87	610,007.92
Nampa-Meridian Irrigation District	1,095,719.42	510,874.19
New York Irrigation District	483,727.70	209,825.06
Wilder Irrigation District	1,475,680.71	681,051.91
Pioneer Irrigation District	301,778.84	128,501.62
Farmers Union Ditch Co.	77,109.57	34,190.56
New Dry Creek Ditch Co.	17,449.68	8,172.75
Settlers Irrigation District	78,236.52	35,260.73
Boise Valley Irrigation Ditch Co.	12,946.86	6,063.86
South Boise Mutual Irrigation Co.	7,015.83	3,287.70
Ballentyne Ditch Co.	5,064.42	2,372.04
Big Bend Irrigation District	52,345.30	24,184.78
Capitol View Irrigation District	6,400.00	2,800.00
Pioneer Ditch Co.	30,225.00	6,422.94
Subtotal	4,966,164.72	2,263,016.06
Total, Boise project	30,678,503.27	19,302,551.53

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—BOISE PROJECT

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES					IRRIGATION REVENUES			RECAPITULATION	
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric plant		Interest free aid to irrigation		Net revenues from water users	Interest free irrigation obligation	
		Interest 3 percent	Principal	In service end of year	Balance to be repaid	Required aid	Balance to be repaid		Total obligation	Balance to be repaid
Through 1918										
1919								\$200,208	\$9,999,756	\$9,799,548
1920								255,523	11,785,159	11,329,728
1921								246,820	11,971,004	11,329,728
1922								180,321	12,046,478	11,278,513
1923								234,966	12,320,591	11,419,066
1924								206,819	12,519,753	11,215,753
1925								234,453	12,678,687	11,045,577
1926								234,501	12,668,360	10,868,128
1927	\$147,354		\$147,354					120,622	13,068,361	11,677,517
1928	84,300		84,300					368,399	14,715,223	12,136,570
1929	16,910		16,910					413,995	14,695,612	11,702,762
1930	49,520		49,520					376,732	14,697,775	11,294,680
1931	84,130		84,130					207,535	14,736,687	10,917,918
1932	86,619		86,619					26,377	14,307,231	10,719,325
1933	32,661		32,661					-16,927	14,405,233	10,397,113
1934	38,906		38,906					19,005	14,379,316	10,357,945
1935	51,873		51,873					14,015	14,379,237	10,343,851
1936	37,550		37,550					301,533	14,379,237	10,012,298
1937	133,828		133,828					285,238	14,379,237	9,739,981
1938	77,012		77,012					287,104	14,379,237	9,444,713
1939	74,867		74,867					19,691,364	14,379,237	9,157,639
1940	71,105		71,105					329,338	14,379,237	8,825,362
1941	78,377		78,377					19,691,364	14,379,237	8,516,811
1942	72,970		72,970					386,523	14,379,237	8,130,291
1943	65,131		65,131					447,284	14,379,237	7,776,334
1944	95,001		95,001					488,868	14,379,237	7,224,864
1945	50,912		50,912					538,115	14,379,237	6,672,369
1946	50,912		50,912					824,953	14,379,237	6,120,601
1947	45,824		45,824					523,149	14,379,237	5,572,720
1948	-104,417		-104,417					353,660	14,379,237	5,021,630
1949	11,181		11,181					361,551	14,379,237	4,460,079
1950	20,518		20,518					444,783	14,379,237	3,913,296
1951	47,802		47,802					667,638	14,379,237	3,350,658
1952	419,618		419,618					602,579	14,379,237	2,748,079
1953	334,528		334,528					627,222	14,379,237	2,120,857
1954	432,489		432,489					662,646	14,379,237	1,493,211
1955	301,212		301,212					592,263	14,379,237	862,948
1956	87,406		87,406					572,975	14,379,237	290,567
1957	246,012		246,012					553,117	14,379,237	108,707
1958	436,957		436,957					560,692	14,379,237	13,560,840
1959	236,057		236,057					564,078	14,379,237	12,422,983
1960	302,701		302,701					564,137	14,379,237	11,859,571
1961	268,510		268,510					564,650	14,379,237	11,375,951
1962	226,138		226,138					564,650	14,379,237	10,800,000
1963	226,138		226,138					564,650	14,379,237	10,225,350
1964	1,004,543		1,004,543					564,650	14,379,237	9,650,700
1965	-70,796		-70,796					564,650	14,379,237	9,086,050
1966	160,136		160,136					564,650	14,379,237	8,511,400
1967	236,900		236,900					564,650	14,379,237	7,936,750
1968	22,961		22,961					564,650	14,379,237	7,372,100
1969	2,265		2,265					564,650	14,379,237	6,807,450
Adjustments as per ARRS			330,535					564,650	14,379,237	6,242,815
Subtotal thru F.Y. 1969	5,327,491		4,835,071					19,302,552	14,379,237	5,327,491
1970	56,185		56,185					431,619	14,379,237	4,895,832
1971	14,788		14,788					423,680	14,379,237	4,472,144
1972								414,842	14,379,237	4,057,302
1973								406,340	14,379,237	3,650,962
1974								395,653	14,379,237	3,255,309
1975								387,177	14,379,237	2,868,132
1976								387,177	14,379,237	2,480,955
1977								387,177	14,379,237	2,093,778

BOSTWICK PARK PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

The Bostwick Park project was authorized by the act of September 2, 1964 (78 Stat. 852), as a participating project under the Colorado River Storage Project Act of April 11, 1956 (70 Stat. 105). It is located in westcentral Colorado in Montrose and Gunnison Counties and is to furnish supplemental irrigation water to about 4,500 acres and a full supply to 1,450 acres. It will also have fish and wildlife and recreation benefits.

The total cost of the project is estimated at \$6,500,000. \$4,800,000 is reimbursable and allocated to irrigation benefits; \$800,000 is for fish and wildlife benefits and \$900,000 for recreation benefits, which are nonreimbursable.

The major features of the project consist of the Silver Jack Dam and Reservoir with 13,500 acre-feet capacity, Bostwick lateral with an overall length of 3.3 miles, Lytle lateral with an overall length of 4.4 miles, and some land drains where necessary.

Water will be obtained from the unused flows of Cimarron Creek, a tributary of the Gunnison River, with storage regulation provided by Silver Jack Reservoir.

Repayment contract.—The Bostwick Park Water Conservancy District as the contracting agency has agreed to pay \$859,000 as the irrigators' obligation, in 50 successive equal annual installments after a 3-year development period, which will commence the year

project water is available for use on or before June 1 of such year for substantially all of the project irrigable lands.

CONTRACT

1966, March 18: Contract 14-06-400-4421 with the Bostwick Park Water Conservancy District for repayment of \$859,000 in 50 successive equal annual installments.

Cost allocation and repayment:

Silver Jack Dam and Reservoir	\$5,477,000
Vernal Mesa ditch	120,000
Lytle lateral	510,000
Bostwick lateral	220,000
Other features	173,000
Estimated total cost	<u>6,500,000</u>
Reimbursable costs: Irrigation	<u>4,800,000</u>
Nonreimbursable costs:	
Fish and wildlife	800,000
Recreation	900,000
Subtotal	<u>1,700,000</u>
Repayment of reimbursable costs:	
Bostwick Park Water Conservancy District ...	859,000
Power revenues:	
Upper Colorado River Basin Fund	3,849,220
Colorado River Development Fund	75,780
Contributions	16,000
Total	<u>4,800,000</u>

BOULDER CANYON PROJECT

ALL-AMERICAN CANAL SYSTEM

ARIZONA-CALIFORNIA

The construction of the All-American Canal System for delivery of water to the Imperial and Coachella Valleys in California was authorized under the Boulder Canyon Project Act of December 21, 1928 (45 Stat. 1057). The distribution system of the Coachella division was found feasible and authorized by the Secretary on July 24, 1947, in accordance with the Reclamation Project Act of 1939.

Project features include the Imperial Dam and desilting works, the main All-American Canal to the Imperial and Coachella Valleys, and the Coachella distribution system and protective works. The project was developed to provide substitute service to the Imperial Irrigation District in Imperial County, California, to which water was formerly delivered through a canal constructed partially in Mexico, to provide a supply of water to the Coachella Valley County Water District in Riverside County, California, and a supplemental supply to the City of San Diego. Although obligated for payment of construction and operation

and maintenance costs, the City of San Diego has merged its water rights with the Metropolitan Water District for delivery above Parker Dam.

The cost of the All-American Canal System, the Coachella distribution system, and appurtenant works was \$60,676,743 at June 30, 1969. In addition, costs amounting to \$6,169,571 of an estimated \$7,175,500, including District contributions of \$25,500, had accrued for current rehabilitation and betterment work on the Coachella division works. These costs, together with \$1,270,264 of corollary construction costs, bring the total construction costs for allocation to \$69,122,507 at June 30, 1969. Also reimbursable is \$983,622 of funded operation and maintenance costs. Costs of Imperial Dam assigned to the Gila project, costs of Colorado River studies, and investigation and preliminary development studies of the Pilot Knob Mesa, East Mesa, and West Mesa totaling \$2,634,740, are not covered by contract. These costs have been assigned for repayment by revenues from leases of land and special use permits.

COST AND REPAYMENT SUMMARY

	Total project	Irrigation			City of San Diego	Flood control
		Imperial Irrigation District	Coachella Valley County Water District	Imperial Dam Gila costs		
Imperial Dam and Desilting Works-----	\$10,077,862	\$7,416,647	\$967,389	\$1,593,863	\$99,963	-----
All-American Canal -----	17,635,584	15,930,558	1,372,326		332,700	-----
Coachella Canal -----	12,240,136	352,630	10,663,491			\$1,224,015
Drains -----	600,691	544,413	40,763		15,515	-----
Coachella distribution system-----	16,504,010		16,504,010			-----
Flood control plant-----	3,329,786					3,329,786
General property -----	288,674	62,051	188,073	11,871	836	24,959
Coachella Canal—R&B -----	6,169,571		6,169,571			-----
Construction work in progress-----	1,005,929		1,005,929			-----
Plant, property and equipment-----	67,852,243	24,306,299	36,912,436	1,605,734	449,014	4,578,760
Corollary construction costs-----	1,270,264		292,089	970,193		7,682
Total costs -----	69,122,507	24,306,299	37,204,525	2,576,227	449,014	4,586,442
O&M deficit funded -----	983,622	713,701	194,779	58,513	16,629	-----
Total -----	70,106,129	25,020,000	37,399,304	2,634,740	465,643	4,586,442
Repayment and other credits:						
Repayment contracts -----	59,594,205	25,020,000	34,108,562		465,643	-----
Contributions -----	25,500		25,500			-----
Funds advanced by Coachella Valley County Water District-----	20,000		20,000			-----
Excess of income over expense-----	970,493			970,493		-----
Total repayment -----	60,610,198	25,020,000	34,154,062	970,493	465,643	-----
Nonreimbursable plant deduction -----	4,586,442					4,586,442
Repayment obligation transferred to Gila project -----	1,664,247			1,664,247		-----
Total repayment and other credits-----	66,860,887	25,020,000	34,154,062	2,634,740	465,643	4,586,442
Excess costs over repayments-----	3,245,242		3,245,242			-----

Distribution system—Coachella division.—The irrigation distribution system in the Coachella Valley was constructed at a total cost of \$16,765,242. However, the contract of December 22, 1947, with the Coachella Valley County Water District indicated that the distribution system would be constructed at a cost of not to exceed \$13.5 million.

Pursuant to the act of August 31, 1951 (65 Stat. 248), it was determined by the courts that the District would not be held liable for costs in excess of \$13.5 million. The nonrecoverable portion of the distribution system costs, therefore, is \$3,245,242. In addition, flood protective works costing \$4,586,442 were declared non-reimbursable in accordance with the act of August 4, 1939 (53 Stat. 1187).

The reimbursable cost of the Coachella Valley distribution system, totaling \$13,500,000, was allocated for repayment by irrigation blocks over a 40-year period following the end of an 8-year development period for each block. The initial payment was due from irrigation blocks 1 and 2 on March 1, 1959; from block 3 on March 1, 1960; from block 4 on March 1, 1961; and from blocks 5 and 6 on March

1, 1963. Payments are based on a preliminary cost allocation made in 1954, the use of which was approved by the District on May 13, 1958, and by the United States on June 9, 1958. A final allocation of costs among blocks is pending the outcome of negotiations between the Coachella Valley County Water District and the Bureau of Indian Affairs concerning the furnishing of water to approximately 10,000 acres of Indian lands and the possible establishment of an additional block or blocks for those lands.

In January 1964, a rehabilitation and betterment program was begun on the Coachella division pursuant to the act of October 7, 1949 (63 Stat. 724), with the total work program scheduled for accomplishment over a period of 5 years. The general nature and purpose of the rehabilitation and betterment program is to install a supervisory remote control and telemetering system for operating the canal and distribution system, install traveling demossing screen in Coachella Main Canal, install a new check gate and rehabilitate an existing check gate in the Coachella Main Canal, create a terminal reservoir, and construct dike structures and/or protective embankments. A repayment

contract covering such work was executed with the Coachella Valley County Water District on July 30, 1963. The contract was amended on December 28, 1966, to more closely correlate repayment with program accomplishment.

In calendar year 1969, Imperial Irrigation District had 530,000 irrigable acres for service, of which 441,989 acres were irrigated, producing a gross crop value of \$172,144,521 and an average value of \$389.48 per acre. The Coachella Valley County Water District had 78,530 irrigable acres for service, of which 52,867 acres were irrigated, producing a gross crop value of \$51,396,104 and an average value of \$972.18 per acre.

Operation and maintenance of the Imperial and Laguna Dams has been retained by the United States in accordance with a contract of March 4, 1952. The cost is financed primarily from advances by water users. Except for the Coachella Canal below engineer station 2604, which has been transferred for operation and maintenance to Coachella Valley County Water District, the All-American Canal is being operated and maintained by the Imperial Irrigation District.

Repayment contracts.—The cost of constructing the All-American Canal System and appurtenant works is repayable by Imperial Irrigation District, Coachella Valley County Water District, and the City of San Diego, under contracts dated respectively December 1, 1932, October 2, 1934, and October 15, 1934. Works were declared completed in 1952 and repayment of construction charges by the contractors commenced on March 1, 1955. Imperial Irrigation District has made payments of \$3,037,416 from net power proceeds in accordance with articles 14 and 32 of the contract of December 1, 1932. Of this amount, \$2,800,299 has been applied against payments due, leaving \$237,117 for application against future accruals.

CONTRACTS

1932, December 1: Contract IIR-747 with Imperial Irrigation District. Construction obligation of \$25,020,000.90, repayable in 40 annual installments at rate of 1 percent per year for the first 5 years, 2 percent per year for the next 10 years, and 3 percent per year for the last 25 years. The initial payment date was March 1, 1955.

1934, October 2: Contract IIR-1151 with City of San Diego. Construction obligation of \$465,642.68, repayable in 38 annual installments at rate of 1 percent per year for the first 5 years, 2 percent per year for the next 10 years, 3 percent per year for the next 21 years, and 6 percent per year for the last 2 years. The initial payment date was March 1, 1955.

1934, October 15: Contract IIR-781 with Coachella Valley County Water District. Construction obligation of \$13,458,562.03, repayable in 40 annual installments at rate of 1 percent per year for first 5 years, 2 percent per year for next 10 years, and 3 percent per year for last 25 years. The initial payment date was March 1, 1955.

1947, December 22: Supplemental contract to contract IIR-781 with Coachella Valley County Water District for distribution system not to exceed \$13,500,000, allocated for repayment by irrigation blocks over a 40-year period following an 8-year development period for each block.

1952, March 4: Contract amendatory and supplemental to contract of December 1, 1932, with Imperial Irrigation District declaring works completed.

1955, December 27: Contract supplemental to contract of October 15, 1934, with Coachella Valley County Water District, provides that District may hold to maturity certain United States savings bonds purchased by power rentals received for power rights and privileges of All-American Canal, at which time the proceeds therefrom are to be paid to the United States for deposit in the Colorado River Dam fund, and applied against the installment payments to become due under the 1934 contract.

1963, July 30: Contract 14-06-300-1384 with Coachella Valley County Water District. Obligation of \$7,150,000 for rehabilitation and betterment of works to be repaid in 30 successive annual installments of \$238,333. The initial payment date was December 31, 1966.

1966, December 28: Amendatory contract with Coachella Valley County Water District to amend contract 14-06-300-1384. Contract adjusts the initial three annual installments to correlate the payment with total expenditures of the United States. Total repayment period reduced to 28 years.

Status of repayment contracts; excludes advance payments from net power proceeds, Imperial Irrigation District:

Total value of contracted repayment	\$59,594,205
Total matured charges	11,546,600
Total matured charges repaid	11,546,600
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—IMPERIAL IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1949					\$317,266		\$317,266	\$317,266
1950					97,246		97,246	414,512
1951					85,190		85,190	499,702
1952					199,604		199,604	699,306
1953					103,929		103,929	803,235
1954					175,605		175,605	978,840
1955	\$25,020,001	\$125,100		\$125,100	163,721		163,721	1,142,561
1956	25,020,001	250,200		250,200	57,460		57,460	1,200,021
1957	25,020,001	250,200		250,200	115,501		115,501	1,315,522
1958	25,020,001	250,200		250,200	161,817		161,817	1,477,339
1959	25,020,001	250,200		250,200	119,046		119,046	1,596,385
1960	25,020,001	375,300		375,300	121,188		121,188	1,717,573
1961	25,020,001	500,400		500,400	146,464	\$284,027	430,491	2,148,064
1962	25,020,001	500,400		500,400	118,283	353,936	472,219	2,620,283
1963	25,020,001	500,400		500,400	134,936	382,117	517,053	3,137,336
1964	25,020,001	500,400		500,400	114,840	365,464	480,304	3,617,640
1965	25,020,001	500,400		500,400	145,679	385,560	531,239	4,148,879
1966	25,020,001	500,400		500,400	110,131	354,721	464,852	4,613,731
1967	25,020,001	500,400		500,400	140,556	390,269	530,825	5,144,556
1968	25,020,001	500,400		500,400	171,837	359,845	531,682	5,676,238
1969	25,020,001	500,400		500,400	441,618	124,061	565,679	6,241,917
Total		6,004,800		6,004,800	¹ 3,241,917	² 3,000,000	6,241,917	
Collected				6,241,917				
Excess ¹				237,117				

¹ Current year collections include advance payments from Imperial Irrigation District's power proceeds applied in accordance with Articles 14 and 32 of the contract of Dec. 1, 1932.

² Credits of \$3,000,000 applied to cover excess of accruals over available net power proceeds. Total credit of \$3,000,000 available in accordance with sec. 1(b) of act of Sept. 2, 1950 (64 Stat. 576), for costs of flood protection works incurred by Imperial Irrigation District.

CONSTRUCTION REPAYMENT HISTORY—COACHELLA VALLEY COUNTY WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955	\$13,410,014	\$67,050		\$67,050	\$68,394		\$68,394	\$68,394
1956	13,458,562	134,100		134,100	132,756		132,756	201,150
1957	13,458,562	134,586	\$728	135,314	135,314		135,314	336,464
1958	13,458,562	134,586		134,586	177,148		177,148	513,612
1959	13,458,562	134,585		134,585	128,446		128,446	642,058
1960	13,458,562	201,879		201,879	165,456		165,456	807,514
1961	13,458,562	269,171		269,171	290,171		290,171	1,097,685
1962	13,458,562	269,171		269,171	258,171		258,171	1,355,856
1963	13,458,562	269,171		269,171	259,171		259,171	1,615,027
1964	13,458,562	269,171		269,171	269,171		269,171	1,884,198
1965	13,458,562	269,171		269,171	269,171		269,171	2,153,369
1966	13,458,562	269,171		269,171	269,171		269,171	2,422,540
1967	13,458,562	269,171		269,171	269,171		269,171	2,691,711
1968	13,458,562	269,171		269,171	269,171		269,171	2,960,882
1969	13,458,562	269,173		269,173	269,173		269,173	3,230,055
Total		3,229,327	728	3,230,055	3,230,055		3,230,055	

**CONSTRUCTION REPAYMENT HISTORY—COACHELLA VALLEY COUNTY WATER DISTRICT
SUPPLEMENTAL CONTRACT**

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1959-----	\$13,500,000	\$17,463	-----	\$17,463	\$17,463	-----	\$17,463	\$17,463
1960-----	13,500,000	66,331	-----	66,331	66,331	-----	66,331	83,794
1961-----	13,500,000	103,636	-----	103,636	103,636	-----	103,636	187,430
1962-----	13,500,000	109,536	-----	109,536	109,536	-----	109,536	296,966
1963-----	13,500,000	122,268	-----	122,268	122,268	-----	122,268	419,234
1964-----	13,500,000	152,463	-----	152,463	152,463	-----	152,463	571,697
1965-----	13,500,000	201,331	-----	201,331	201,331	-----	201,331	773,028
1966-----	13,500,000	238,636	-----	238,636	238,636	-----	238,636	1,011,664
1967-----	13,500,000	244,535	-----	244,535	244,535	-----	244,535	1,256,199
1968-----	13,500,000	257,268	-----	257,268	257,268	-----	257,268	1,513,467
1969-----	13,500,000	270,000	-----	270,000	270,000	-----	270,000	1,783,467
Total -----	-----	1,783,467	-----	1,783,467	1,783,467	-----	1,783,467	-----

**CONSTRUCTION REPAYMENT HISTORY—COACHELLA VALLEY COUNTY WATER DISTRICT
REHABILITATION AND BETTERMENT CONTRACT**

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1967-----	\$7,150,000	\$79,091	-----	\$79,091	\$79,091	-----	\$79,091	\$79,091
1968-----	7,150,000	153,671	-----	153,671	153,671	-----	153,671	232,762
1969-----	7,150,000	183,761	-----	183,761	183,761	-----	183,761	416,523
Total -----	-----	416,523	-----	416,523	416,523	-----	416,523	-----

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—CITY OF SAN DIEGO

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955-----	\$465,643	\$2,328	-----	\$2,328	\$2,328	-----	\$2,328	\$2,328
1956-----	465,643	4,657	-----	4,657	4,657	-----	4,657	6,985
1957-----	465,643	4,656	-----	4,656	4,656	-----	4,656	11,641
1958-----	465,643	4,657	-----	4,657	4,657	-----	4,657	16,298
1959-----	465,643	4,656	-----	4,656	4,656	-----	4,656	20,954
1960-----	465,643	6,985	-----	6,985	6,985	-----	6,985	27,939
1961-----	465,643	9,312	-----	9,312	9,312	-----	9,312	37,251
1962-----	465,643	9,313	-----	9,313	9,313	-----	9,313	46,564
1963-----	465,643	9,313	-----	9,313	9,313	-----	9,313	55,877
1964-----	465,643	9,313	-----	9,313	9,313	-----	9,313	65,190
1965-----	465,643	9,313	-----	9,313	9,313	-----	9,313	74,503
1966-----	465,643	9,313	-----	9,313	9,313	-----	9,313	83,816
1967-----	465,643	9,313	-----	9,313	9,313	-----	9,313	93,129
1968-----	465,643	9,313	-----	9,313	9,313	-----	9,313	102,442
1969-----	465,643	9,313	-----	9,313	9,313	-----	9,313	111,755
Total-----		111,755		111,755	111,755		111,755	

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1952-----	\$36,293	\$36,293
1953-----	51,332	51,332
1954-----	43,997	43,997
1955-----	49,002	47,388
1956-----	49,540	49,540
1957-----	45,504	45,504
1958-----	53,418	55,032
1959-----	46,420	46,420
1960-----	67,589	67,589
1961-----	70,640	70,640
1962-----	69,039	69,039
1963-----	84,228	84,228
1964-----	75,789	75,789
1965-----	79,020	79,020
1966-----	63,942	63,942
1967-----	62,056	62,056
1968-----	49,179	49,179
1969-----	60,584	60,584
Total-----	1,057,572	1,057,572

PAYOUT STUDY—ALL-AMERICAN CANAL SYSTEM

Fiscal year	NET REVENUES FROM CONTRACTORS						INVESTMENT REPAYMENT	
	Imperial Irrigation District	Coachella Valley County Water District	City of San Diego	Coachella Valley County Water District	Coachella Valley County Water District	Total	Total contract obligation	Interest free balance to be paid
Subtotal through 1969—	\$6,004,800	\$3,230,055	\$111,755	\$1,783,467	\$416,523	\$11,546,600	\$59,594,205	\$48,047,605
1970-----	625,500	336,464	11,642	270,000	249,215	1,492,821	59,594,205	46,554,784
1971-----	750,600	403,757	13,969	270,000	249,281	1,687,607	59,594,205	44,867,177
1972-----	750,600	403,757	13,969	270,000	249,281	1,687,607	59,594,205	43,179,570
1973-----	750,600	403,757	13,969	270,000	249,281	1,687,607	59,594,205	41,491,963
1974-----	750,600	403,757	13,969	287,463	249,281	1,705,070	59,594,205	39,786,893
1975-----	750,600	403,757	13,969	336,331	249,281	1,753,938	59,594,205	38,032,955
1976-----	750,600	403,757	13,969	373,636	249,281	1,791,243	59,594,205	36,241,712
1977-----	750,600	403,757	13,969	379,536	249,281	1,797,143	59,594,205	34,444,569
1978-----	750,600	403,757	13,969	392,268	249,281	1,809,875	59,594,205	32,634,694
1979-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	30,812,087
1980-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	28,989,480
1981-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	27,166,873
1982-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	25,344,266
1983-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	23,521,659
1984-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	21,699,052
1985-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	19,876,445
1986-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	18,053,838
1987-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	16,231,231
1988-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	14,408,624
1989-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	12,586,017
1990-----	750,600	403,757	13,969	405,000	249,281	1,822,607	59,594,205	10,763,410
1991-----	750,600	403,757	20,955	405,000	249,281	1,829,593	59,594,205	8,933,817
1992-----	750,600	403,757	27,940	405,000	249,281	1,836,578	59,594,205	7,097,239
1993-----	750,600	403,757	13,971	405,000	249,281	1,822,609	59,594,205	5,274,630
1994-----	750,600	403,757	0	405,000	750,799	2,310,156	59,594,205	2,964,474
1995-----	375,300	201,875	0	405,000	0	982,175	59,594,205	1,982,299
1996-----	0	0	0	405,000	0	405,000	59,594,205	1,577,299
1997-----	0	0	0	405,000	0	405,000	59,594,205	1,172,299
1998-----	0	0	0	405,000	0	405,000	59,594,205	767,299
1999-----	0	0	0	352,611	0	352,611	59,594,205	414,688
2000-----	0	0	0	206,007	0	206,007	59,594,205	208,681
2001-----	0	0	0	94,092	0	94,092	59,594,205	114,589
2002-----	0	0	0	76,393	0	76,393	59,594,205	38,196
2003-----	0	0	0	38,196	0	38,196	59,594,205	0
Total-----	25,020,000	13,458,562	465,643	13,500,000	7,150,000	59,594,205	59,594,205	-----

BOULDER CANYON PROJECT

HOOVER DAM AND POWERPLANT

ARIZONA-NEVADA

The Boulder Canyon project was authorized by the act of December 21, 1928 (45 Stat. 1057), subject to the terms of the Colorado River Compact. The Boulder Canyon Project Adjustment Act (54 Stat. 774), dated July 19, 1940, provided for certain changes in the original plan. The act of June 29, 1948 (62 Stat. 1112), provided that certain investments and expenditures not related to the construction, operation, or maintenance of the project be removed from the repayable costs of the project.

The project was constructed for the purpose of controlling the floods, improving navigation, and regulating the flow of the Colorado River, providing for storage and for the delivery of the stored waters thereof for reclamation of public lands and other beneficial uses exclusively within the United States, and for the generation of electrical energy. The main features of the project include the dam and reservoir, hydroelectric plant, and high-voltage switchyards. Electrical energy is delivered to the allottees at the high-voltage switchyards and transmitted from that point to loads in Arizona, California, and Nevada over facilities which are owned or arranged for by the allottees of electrical energy. The investment of the United States in Hoover Dam and appurtenant works subject to amortization May 31, 1969, was \$145,181,882.

The total estimated cost of the project is \$176,075,663. The total estimated cost of the additional water facilities for Boulder City, Nev., is \$1,151,374 (see below). With the exception of the installation of additional transformer capacity to serve the State of Nevada, the project has been completed and is now serving the southwestern area of the United States with large quantities of energy. The final generating unit N-8 was completed and placed in operation on December 1, 1961.

Revenues from Hoover powerplant are paid into the Colorado River Dam Fund, from which appropriations for operation and maintenance are made by Congress annually.

After making provision for operation, maintenance, and replacement of the project, annual payments of \$300,000 to each of the States of Arizona and Nevada, and annual transfers of \$500,000 to the Colorado River Development Fund, the net revenue available for repayment of advances to the Treasury, with interest, amounted to \$147,655,830 at May 31, 1969. With the exception of \$25,000,000 allocated to flood control, and the nonproject costs determined in accordance with the act of June 29, 1948 (62 Stat. 1112), the cost of construction, operation, maintenance, and replacement will be repaid to the United States in 50-year periods with interest at 3 percent per annum by the revenues from generating charges, the sale of energy, and other incidental revenues. These revenues are guaranteed by formal contracts with the energy allottees with rates based on the repayment of advances for construction within 50-year periods. The repayment of the advances of \$25,000,000 allocated to flood control has been deferred without interest until June 1, 1987, after which time such advances so allocated to flood control shall be repayable to the Treasury as the Congress shall determine.

The dam and powerplant building and their appurtenances are owned, operated, and maintained by the United States. Generating, transforming, and switching facilities are owned by the United States but are operated and maintained by the Department of Water and Power of the City of Los Angeles and the Southern California Edison Co. as agents of the United States.

The allocation of the construction costs is summarized as follows:

CONTRACTS FOR SALE OF POWER

Contract No.	Contractor	Firm energy allocation, percent	Date of execution	Date of termination
Ilr-1334-----	Department of Water and Power-----	17.5554	May 29, 1941---	May 31, 1987.
Ilr-1336-----	Metropolitan Water District-----	35.2517	----- do -----	Do.
Ilr-1455-----	State of Arizona-----	17.6259	Nov. 23, 1945---	Do.
Ilr-1338-----	State of Nevada-----	17.6259	May 29, 1941---	Do.
Ilr-1335-----	Southern California Edison Co.-----	7.0503	----- do -----	Do.
Ilr-1340-----	City of Glendale-----	1.8475	----- do -----	Do.
Ilr-1337-----	City of Pasadena-----	1.5847	----- do -----	Do.
Ilr-1341-----	California Electric Power Co.-----	.8813	----- do -----	Do.
Ilr-1339-----	City of Burbank-----	.5773	----- do -----	Do.

Metropolitan Water District has the first right to all unused firm and all secondary energy for pumping only. The City of Los Angeles, Southern California Edison Co., and California Electric Power Co. are obligated to take and/or pay for, respectively, 55, 40, and 5 percent of all firm energy allocated to the States but unused by them or Metropolitan Water District. The city and companies have also the right to use, in the same respective percentages, secondary energy unused by Metropolitan Water District.

U. S. reserves up to 20,000 kilowatts, to be deducted equally out of the

allotments to the city of Los Angeles and the Southern California Edison Co. United States can use reserved power for its own use or for resale in its construction or operating camps, or for any purpose within an area defined in the regulations.

Allocation to the cities of Burbank, Pasadena, and Glendale is generated and transmitted by the City of Los Angeles, California Electric Power Co. merged with Southern California Edison Co., but for purposes of accounting contract Ilr 1341 remains in full force and effect.

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY

Operating year ending May 31	Net revenue available for amortization	Investment repayment from power revenues—interest-bearing				Earned surplus, cumulative
		Interest, 3 percent	Principal	Repayable investment at end of year	Balance to be repaid	
1937	\$247,723		\$247,723	\$87,834,206	\$87,586,483	0
1938	1,299,166	\$2,621,060	(1,321,894)	93,608,054	94,682,225	0
1939	2,571,109	2,815,260	(244,151)	99,273,246	100,591,568	0
1940	3,127,636	2,847,036	280,600	103,390,525	104,428,247	0
1941	4,595,566	3,014,916	1,580,650	108,278,400	107,735,472	0
1942	2,671,626	3,059,092	(387,466)	111,881,168	111,725,706	0
1943	2,173,958	3,317,433	(1,143,475)	116,680,278	117,668,291	0
1944	4,933,080	3,628,599	1,304,481	119,450,903	119,134,435	0
1945	5,369,374	3,525,496	1,843,878	120,871,525	118,711,179	0
1946	4,036,071	3,545,965	490,106	120,871,525	118,221,073	0
1947	4,653,790	3,549,762	1,104,028	122,512,528	118,758,048	0
1948	5,030,022	3,547,328	1,482,694	122,951,151	117,713,977	0
1949	5,657,995	3,536,822	2,121,173	124,570,475	117,212,128	0
1950	5,324,514	3,610,526	1,713,988	129,244,809	120,172,474	0
1951	4,813,394	3,599,190	1,214,204	133,334,808	123,048,269	0
1952	5,256,016	3,557,429	1,698,587	140,445,280	128,460,154	0
1953	6,311,964	3,845,308	2,466,656	140,895,465	126,443,683	0
1954	5,184,936	3,789,871	1,395,065	141,122,613	125,275,766	0
1955	4,609,405	3,780,053	829,352	141,326,741	124,650,542	0
1956	587,488	3,229,465	(2,641,977)	138,264,379	124,230,157	0
1957	6,682,980	3,584,534	3,098,446	139,298,677	122,166,009	0
1958	5,948,369	3,646,290	2,302,079	139,231,693	119,796,946	0
1959	5,651,622	3,568,748	2,082,874	139,355,882	117,838,261	0
1960	4,716,044	3,502,386	1,213,658	141,049,055	118,317,776	0
1961	5,142,665	3,485,255	1,657,410	145,144,883	120,756,194	0
1962	4,412,132	3,488,523	923,609	145,160,241	119,847,943	0
1963	5,334,585	3,552,680	1,781,905	145,153,896	118,059,693	0
1964	4,981,882	3,506,236	1,475,646	145,205,343	116,635,494	0
1965	5,118,787	3,442,063	2,176,724	145,394,569	114,647,996	0
1966	5,312,750	3,392,985	1,919,765	145,381,950	112,715,612	0
1967	5,527,120	3,323,683	2,203,437	145,298,173	110,428,398	0
1968	5,396,196	3,264,503	2,131,693	145,225,448	108,223,980	0
1969	5,456,581	3,189,326	2,267,255	145,181,882	105,913,159	0
Prior year adjustments	-980,716	-980,716				0
Subtotal	147,655,830	108,387,107	39,268,723	145,181,882	105,913,159	0
1970	5,143,029	3,177,395	1,965,634	145,377,882	104,143,525	0
1971	7,326,396	3,124,306	4,202,090	146,119,372	100,682,925	0
1972	7,312,463	3,020,488	4,291,975	146,799,372	97,070,950	0
1973	7,290,680	2,912,129	4,378,551	146,799,372	92,692,399	0
1974	7,270,196	2,780,772	4,489,424	146,799,372	88,202,975	0
1975	7,264,113	2,646,089	4,618,024	146,799,372	83,584,951	0
1976	7,228,430	2,507,549	4,720,881	146,799,372	78,864,070	0
1977	7,208,147	2,365,922	4,842,225	146,799,372	74,021,845	0
1978	7,187,913	2,220,655	4,967,258	146,799,372	69,054,587	0
1979	7,167,480	2,071,638	5,095,842	146,799,372	63,958,745	0
1980	7,146,697	1,918,762	5,227,935	146,799,372	58,730,310	0
1981	7,126,364	1,761,924	5,364,440	146,799,372	53,366,370	0
1982	7,104,780	1,600,991	5,503,789	146,799,372	47,862,581	0
1983	7,083,747	1,435,877	5,647,870	146,799,372	42,214,711	0
1984	7,061,814	1,266,441	5,795,373	146,799,372	36,419,338	0
1985	7,038,981	1,092,580	5,946,401	146,799,372	30,472,937	0
1986	7,016,647	914,188	6,102,459	146,799,372	24,370,478	0
1987	6,992,823	731,114	6,261,709	146,799,372	18,108,769	0
Total	274,626,530	145,935,927	128,690,603	146,799,372	18,108,769	0

Total estimated cost	\$176,075,663
Commercial power	146,799,372
Flood control	25,000,000
Nonproject cost	4,276,291

Recreation facilities at Lake Mead are administered by the National Park Service.

ADDITIONAL WATER DELIVERY FACILITIES FOR BOULDER CITY, NEV.

The Boulder City Act of 1958 (72 Stat. 1726), approved September 2, 1958, authorized transfer of the city from Federal control to the municipality incorporated under the laws of the State of Nevada on January 4, 1960. Section 9(d) of the act provides that, if water requirements for the municipality shall at any time exceed 3,650 gallons a minute, the Secretary may furnish whatever additional water and whatever additional carrying capacity may be needed. The municipality is to bear the full cost of furnishing such additional water. Boulder City has expanded sufficiently to require more than 3,650 gallons of water per minute during peak days in the summer months.

Pursuant to a request by the city in late 1963, the Bureau of Reclamation investigated the need for additional water facilities. Subsequently, the city requested the Bureau to construct a covered, concrete-lined, 10-million-gallon storage reservoir and appurtenant pipeline and pump facilities to connect the storage reservoir to the existing distribution system owned and operated by Boulder City. A repayment contract for construction of these facilities by the Bureau of Reclamation was executed on March 3, 1969, and construction was initiated in March 1970.

Total cost of the additional facilities is estimated to

be \$1,151,374. Boulder City has contributed \$8,374 for investigations and will contribute an additional \$514,000 for construction of the facilities. The Bureau of Reclamation will finance the remaining \$629,000 of construction costs with Federal funds. Repayment of reimbursable Federal costs (\$629,000 plus interest during construction) will be accomplished in 40 equal annual installments beginning on June 1 of the calendar year immediately following completion of construction. Interest at the rate of 3 percent per annum on the unpaid balance will be paid with each annual installment.

After completion of the construction, the care, operation, and maintenance of the constructed works will be assumed by Boulder City. Title to all works constructed under the contract will be vested in the City of Boulder City.

CONTRACTS

1964, April 2: Contract 14-06-300-1459 with the City of Boulder City, Nev., for investigations and studies relating to the delivery of water to Boulder City. Cost of investigations amounted to \$8,374, which was paid in full with interest on May 5, 1967.

1969, March 3: Contract 14-06-300-2084 with the City of Boulder City, Nev. Construction obligation of \$629,000, repayable in 40 equal annual principal installments plus interest at the rate of 3 percent per annum. Initial payment estimated to be June 1, 1972.

Total value of contracted repayment	\$629,000
Total matured charges	0

Payout schedule.—Construction obligation of \$629,000, plus \$9,000 interest during construction, repayable in 40 equal annual installments plus interest at 3 percent per annum. Payment scheduled to commence June 1, 1972.

BUFFALO RAPIDS PROJECT

MONTANA

The Buffalo Rapids project is located along the Yellowstone River in Custer, Dawson, and Prairie Counties, Montana. The First division (Glendive unit) was originally approved by the President on September 27, 1937, to be constructed with nonreimbursable local labor financed from funds allocated under the Emergency Relief Appropriation Act of 1937. Completion of this unit, including an extension to serve 3,000 additional acres, was approved by the President on May 15, 1940, under the Water Conservation and Utilization Act of May 10, 1939.

The Second division, consisting of the Shirley, Terry, and Fallon units, was recommended by the Secretary under the terms of the Water Conservation and Utilization Act of May 10, 1939, and was approved by the President October 11, 1939. A revised plan enlarging the division was approved by the President on May 15, 1940. The Secretary, by act of October 10, 1949, was authorized to complete construction of the irrigation and drainage works on the First and Second divisions.

Construction of the First division was initiated in 1937 by the Bureau of Reclamation. The Main Canal and portions of the laterals of this unit were completed in the spring of 1941. In 1942 and 1943 the Farm Security Administration completed the irrigation laterals and necessary concrete structures. A third pumping unit was installed by the Bureau of Reclamation in 1944 to increase the capacity of the pumping plant and furnish irrigation water for an additional 6,000 acres, or to be used as a standby in case one of the other two pump units needs repairs during the irrigation season.

As a natural outgrowth of the initial development, the Second division, along the east bank of the Yellowstone River, was conceived, and construction began in September 1940, and proceeded, with some delays, throughout World War II, although work on the Fallon unit did not begin until August 1945. All construction was essentially completed by 1948.

Major works for the project are:

First division: An intake channel of 1,000 feet, pumping plant of three units with a capacity of 330 cubic feet per second and 103-foot lift, 33.6 miles of canal, and 56.7 miles of laterals.

Second division: Shirley unit—pumping plant with a capacity of 111 cubic feet per second and 51-foot lift, 13.3 miles of canal, and 15.7 miles of laterals. Terry unit—pumping plant with a capacity of 61.5 cubic feet per second and 109-foot lift, 7.5 miles of canal, and 15.4 miles of laterals. Fallon unit—pumping plant with a capacity of 72 cubic feet per second and 49-foot lift, 6.8 miles of canal, and 8.0 miles of laterals.

The total estimated cost of constructing these two divisions is \$5,255,588. The drainage systems for both divisions are nearing completion.

Statement of cost and repayment:

Cost:

	IRRIGATION		
	Total	First division	Second division
Irrigation plant	\$5,207,300	\$2,605,993	\$2,601,307
Property transfers	48,141	15,292	32,849
Administrative costs (NIRA)	147	147	...
Total cost	5,255,588	2,621,432	2,634,156

Repayment and other credits:

Repayments realized:			
Repayment contracts matured	350,177	205,787	144,390
Water users equity	28,603	15,090	13,515
Miscellaneous revenue	5,279	648	4,631
Subtotal	384,061	221,525	162,536
Repayment contracts unmatured	1,026,149	599,312	426,837
Total repayment	1,410,210	820,837	589,373
Nonreimbursable plant deductions ¹	3,845,231	1,800,448	2,044,783
Nonreimbursable expenses	147	147	...
Total repayment and other credits ..	5,255,588	2,621,432	2,634,156

¹ Includes Department of Agriculture costs for First division, \$232,328 and Second division, \$323,008. Authorized by act of Oct. 10, 1949 (Public Law 336, 81st Cong.)

The total project includes 22,828 acres of irrigable land. The First division contains 13,313 irrigable acres, of which 12,534 acres were irrigated during 1969 with a gross crop value of \$1,334,611 or \$106.48 per acre irrigated. The Second division contains 9,515 irrigable acres with 8,842 acres irrigated during 1969 and a gross crop value of \$971,766 or \$109.90 per acre. An additional 2,036 acres of other lands were also irrigated during this season. The cumulative crop value from 1940-1969 amounts to \$39,201,673.

The project is operated by the Buffalo Rapids Board of Control as the agent of the Buffalo Rapids Irrigation District No. 1 and Buffalo Rapids Irrigation District No. 2.

Repayment contracts.—Repayment contracts were executed March 22, 1954, with Buffalo Rapids Irrigation Districts No. 1 and No. 2. The contracts provide for the repayment of a \$60 total obligation per irrigable acre over a 60-year period, pursuant to the act of October 10, 1949. The first installment became due in 1955, and as of June 30, 1969, all payments were current.

PUBLIC NOTICES AND CONTRACTS

1940, May 3: Public notice. Temporary water rental charge for the irrigation season of 1940 and thereafter until

further notice will be \$1 per acre-foot under approved applications.

1947, June 9: Public notice. Temporary water rental charge for the irrigation season of 1947 and thereafter until further notice will be \$1 per acre-foot when available under approved applications for irrigable lands in the Shirley and Terry units of the Second division of the Buffalo Rapids project.

1954, March 22: Repayment contract 14-06-600-1216 with Buffalo Rapids Irrigation District No. 1 and 14-06-600-1217 with Buffalo Rapids Irrigation District No. 2, under which each of the districts agrees to pay a total construction obligation of \$60 per irrigable acre over a period of 60 years, not to exceed a total of \$930,000 for District No. 1 and \$696,000 for District No. 2, these amounts to be determined at the time the Secretary announces completion of the district works when such irrigable acreage is to be determined.

Summary of status of repayment contracts:

Irrigation District No. 1:

Total value of contracted repayment	\$805,099
Total matured charges	205,788
Total matured charges repaid	205,788
Total matured charges unpaid	0

Irrigation District No. 2:

Total value of contracted repayment	571,227
Total matured charges	144,389
Total matured charges repaid	144,389
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—IRRIGATION DISTRICT NO. 1

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955-----	\$930,000	\$13,300	-----	\$13,300	\$6,650	-----	\$6,650	\$6,650
1956-----	930,000	13,300	-----	13,300	13,300	-----	13,300	19,950
1957-----	930,000	13,300	¹ \$600	13,900	13,300	¹ \$600	13,900	33,850
1958-----	² 805,099	13,408	-----	13,408	20,058	-----	20,058	53,908
1959-----	805,099	13,408	-----	13,408	13,408	-----	13,408	67,316
1960-----	805,099	13,408	-----	13,408	13,408	-----	13,408	80,724
1961-----	805,099	13,408	¹ 146	13,554	13,408	¹ 146	13,554	94,278
1962-----	805,099	13,406	-----	13,406	13,406	-----	13,406	107,684
1963-----	805,099	13,406	-----	13,406	13,406	-----	13,406	121,090
1964-----	805,099	13,406	¹ 423	13,829	13,406	¹ 423	13,829	134,919
1965-----	805,099	13,406	¹ 388	13,794	13,406	¹ 388	13,794	148,713
1966-----	805,099	13,389	¹ 37	13,426	13,389	¹ 37	13,426	162,139
1967-----	805,099	13,389	-----	13,389	13,389	-----	13,389	175,528
1968-----	805,099	13,313	¹ 3,634	16,947	13,313	¹ 3,634	16,947	192,475
1969-----	805,099	13,313	-----	13,313	13,313	-----	13,313	205,788
Total--	-----	200,560	5,228	205,788	200,560	5,228	205,788	-----

¹ Application of construction payments received from lands purchased for subdividing or right-of-way.

² Dec. 5, 1957, announcement of irrigable area to be 13,417.32 acres.

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—IRRIGATION DISTRICT No. 2

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955-----	\$696,000	\$8,600	-----	\$8,600	\$4,300	-----	\$4,300	\$4,300
1956-----	696,000	8,600	-----	8,600	8,600	-----	8,600	12,900
1957-----	696,000	8,600	-----	8,600	8,600	-----	8,600	21,500
1958-----	¹ 571,227	9,520	-----	9,520	13,820	-----	13,820	35,320
1959-----	571,227	9,521	-----	9,521	9,521	-----	9,521	44,841
1960-----	571,227	9,521	² \$2,049	11,570	9,521	² \$2,049	11,570	56,411
1961-----	571,227	9,486	-----	9,486	9,486	-----	9,486	65,897
1962-----	571,227	9,486	-----	9,486	9,486	-----	9,486	75,383
1963-----	571,227	9,486	-----	9,486	9,486	-----	9,486	84,869
1964-----	571,227	9,486	-----	9,486	9,486	-----	9,486	94,355
1965-----	571,227	9,486	-----	9,486	9,486	-----	9,486	103,841
1966-----	571,227	9,514	-----	9,514	9,514	-----	9,514	113,355
1967-----	571,227	9,514	-----	9,514	9,514	-----	9,514	122,869
1968-----	571,227	9,514	² 2,548	12,062	9,514	² 2,548	12,062	134,931
1969-----	571,227	9,458	-----	9,458	9,458	-----	9,458	144,389
Total--	-----	139,792	4,597	144,389	139,792	4,597	144,389	-----

¹ Dec. 5, 1957—Announcement of irrigable area to be 9,520.45 acres.² Application of construction payments received from lands purchased for

subdividing or right-of-way.

Payout schedule.—Buffalo Rapids Irrigation Districts Nos. 1 and 2 each contracted to repay its construction obligation of \$60 per irrigable acre over a 60-year period. Repayment began in fiscal year 1955 and is scheduled to complete in fiscal year 2015.

BUFORD-TRENTON PROJECT

NORTH DAKOTA

Original Project.—The original Buford-Trenton project, situated along the north bank of the Missouri River in northwestern North Dakota, was found feasible by the Secretary under the Reclamation Act of 1902 (32 Stat. 388) on November 18, 1904, and examined and reported upon by a Board of Army Engineers and approved by the President on January 5, 1911. The project was unsuccessful, however, and the act of May 26, 1926 (44 Stat. 653), authorized the cancellation of all water-right charges and the release of all liens existing against the lands in the project on account of the water-right charges. Costs amounting to \$221,424 were charged off in the accounts of the United States as a loss to the Reclamation fund. The balance of the construction costs, amounting to \$1,999, had been reimbursed from project revenues.

Statement of cost and repayment:

Total cost	\$223,423
Repayment:	
Water rentals	31
Building rentals	377
Miscellaneous receipts	1,591
Total	1,999
Charge off	221,424
Total	<u>223,423</u>

Water Conservation and Utilization Project Authorization.—On August 23, 1939, under the terms of the act of May 10, 1939 (53 Stat. 685, 719), the Secretary recommended construction of a Water Conservation and Utilization project in the same general area. The plan was approved by the President on September 23, 1939. On July 22, 1942, a new finding enlarging the project area was made by the Secretary and approved by the President on August 7, 1942.

Construction of the present facilities was initiated under the water conservation and utility provisions of the Interior Department Appropriation Act of 1940,

cited above, at an estimated cost of \$1,500,000. Of this amount \$870,000 was to be nonreimbursable, \$220,000 to be reimbursable to the Department of Agriculture, and \$410,000 to the Bureau of Reclamation for project facilities.

The Bureau of Reclamation constructed the irrigation and drainage system during the period from May 1940 to 1943. The Department of Agriculture supervised the land preparation, settlement, and agricultural planning. Labor was supplied by the Works Projects Administration, the Civilian Conservation Corps, and the Civilian Public Service. The President on March 14, 1945, approved the designation of the project as a war food project under the provisions of the Water Conservation and Utilization Act of October 14, 1940 (54 Stat. 1119), as amended on July 16, 1943 (57 Stat. 566). The estimated cost was increased by \$276,000 on August 7, 1942, by Presidential approval, \$138,000 to be returned to the Department of Agriculture and \$138,000 to the Bureau of Reclamation. Thus, the total amount reimbursable to the Bureau of Reclamation for project works was \$548,000.

An additional appropriation of \$300,000 was made available under the 1954 appropriation act (P. L. 172, dated July 31, 1953) for emergency flood protection and minor completion work on the irrigation system. The nonreimbursable emergency flood protection work was substantially completed during fiscal years 1955 and 1956 at a total cost of \$149,019. This work included relocation of canals and laterals, protection of the pumping plant, and installation of flood works. Minor completion work was accomplished during fiscal years 1959 through 1961 under the provisions of article 1(b) of the November 18, 1958, contract with the Buford-Trenton Irrigation District.

The November 18, 1958, contract was negotiated under the provisions of the act of June 21, 1957 (P. L. 85-58, 71 Stat. 176, 184). This act provided

for the purchase of lands in the Buford-Trenton Irrigation District by the Corps of Engineers in lieu of protection of these lands in connection with the operation of the Garrison Dam and Reservoir on the Missouri River. The purchase price of these lands included the payment of the construction charge assignable to 2,987 acres of irrigable land amounting to \$110,614. This act also provided that in recognition of the increased per acre annual operation and maintenance cost of the remaining lands the construction charge obligation assignable to these lands should be nonreimbursable. The minor completion work accomplished during fiscal years 1959 through 1961 was for the benefit of these remaining lands.

The project works consist of a pumping plant with a capacity of 240 cubic feet per second to lift water 29 feet, 11.5 miles of canal and 36.3 miles of laterals, and 33.0 miles of drains.

The Buford-Trenton Mutual Aid Corporation operated the project from September 15, 1944, to January 1, 1955, under an irrigation lease agreement entered into with the United States on September 14, 1944. On January 1, 1955, the Buford-Trenton Irrigation District assumed full management responsibilities from the Buford-Trenton Mutual Aid Corporation.

There are 7,655 acres of irrigable land remaining in the District, but some of the lands acquired by the Corps of Engineers are cropped under lease arrangements. Seven thousand, one hundred and eighty-eight acres were irrigated during 1969 with a total crop value of \$1,051,452 or \$146.28 per acre. The gross crop value from 1945-1969 amounts to \$13,802,368.

Statement of cost and repayment:

Plant, property and equipment: Irrigation plant ...	\$1,179,292
Corollary costs: Property transfers	59,902

Total allocated	<u>1,239,194</u>
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Repayment and other credits:

Repayment realized:	
Contributions	1,800
Excess of income over expense	2,827

Subtotal	<u>4,627</u>
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Other credits:	
Repayment reductions authorized	437,435
Nonreimbursable plant deductions	686,518
Corps of Engineers payments	110,614

Total repayment and other credits	<u>1,239,194</u>
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BURNT RIVER PROJECT

OREGON

Construction of Unity Dam and Reservoir, located on the Burnt River in Baker County about 40 miles southwest of Baker, Oreg., was found feasible by the Secretary of the Interior on September 25, 1935. It was approved on August 13, 1935, by the President under the Emergency Relief Act of 1935.

The purpose of the project was to provide for the storage of water for an area of approximately 15,000 irrigable acres which had for many years depended entirely on the natural flow of Burnt River for its water supply. Unity Dam and Reservoir, by providing for storage of floodwater and thus making possible the exchange of stored water for natural streamflow, not only assured an adequate supply for lands lying downstream from the reservoir but increased the supply for lands above the reservoir. Construction of the storage facilities began August 13, 1936, with storage water first available on January 1, 1939.

The land area served by the project has remained fairly constant since construction was completed. In 1969, the irrigable area for service was 15,616 acres and the irrigated area consisted of 15,056 acres. The gross value of crops produced on the project lands for that same year was \$759,454 and the average value per irrigated acre was \$50.44.

The total cost of constructing the storage system was \$601,026. The entire amount, except for \$1,291 in contributions, is repayable under the terms of the repayment contract with the irrigation district.

The Bureau of Reclamation built only the storage works and these facilities are operated by the Burnt River Irrigation District.

Repayment contracts.—The Burnt River Irrigation District (formerly Bridgeport Irrigation District) contracted with the Bureau of Reclamation to build Unity Dam and Reservoir at a cost not to exceed \$550,000. Subsequently, due to a change in location of the dam which necessitated moving a bridge and section of the State highway, a supplemental contract was executed to increase the limitation on construction costs to not exceed \$600,000.

Payout schedule.—Repayment is scheduled in 80 equal semiannual installments of \$7,496.42, commencing in 1940 with last payment due in 1979.

CONTRACTS AND NOTICE

- 1935, December 24: Contract Ilr-821 with Burnt River Irrigation District covers construction of Unity Dam and Reservoir at a cost not to exceed \$550,000, repayable in 80 semiannual installments. Irrigable acreage at time of contract was 16,801.
- 1937, October 2: Contract Ilr-821 amended to provide for increasing limitation of obligation not to exceed \$600,000. Otherwise, original contract remains in full force.
- 1942, July 16: Final cost notice issued to District by Secretary's office advising that actual repayable cost was \$599,735. Semiannual installments due July 1 and December 31.

Summary of status of repayment contracts:

Total value of contracted repayment	\$599,735
Total matured charges	449,807
Total matured charges repaid	449,807
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1940-----	\$600,000	\$7,500	-----	\$7,500	\$7,500	-----	\$7,500	\$7,500
1941-----	600,000	15,000	-----	15,000	15,000	-----	15,000	22,500
1942-----	600,000	15,000	-----	15,000	15,000	-----	15,000	37,500
1943-----	¹ 599,735	14,996	-----	14,996	14,996	-----	14,996	52,496
1944-----	599,735	14,993	-----	14,993	14,993	-----	14,993	67,489
1945-----	599,735	14,993	-----	14,993	14,993	-----	14,993	82,482
1946-----	599,735	14,993	-----	14,993	14,993	-----	14,993	97,475
1947-----	599,735	14,993	-----	14,993	14,993	-----	14,993	112,468
1948-----	599,735	14,993	-----	14,993	14,993	-----	14,993	127,461
1949-----	599,735	14,993	-----	14,993	14,993	-----	14,993	142,454
1950-----	599,735	14,993	-----	14,993	14,993	-----	14,993	157,447
1951-----	599,735	22,488	-----	22,488	22,488	-----	22,488	179,935
1952-----	599,735	14,993	-----	14,993	7,497	-----	7,497	187,432
1953-----	599,735	14,993	-----	14,993	22,489	-----	22,489	209,921
1954-----	599,735	14,993	-----	14,993	14,993	-----	14,993	224,914
1955-----	599,735	14,993	-----	14,993	14,993	-----	14,993	239,907
1956-----	599,735	14,993	-----	14,993	14,993	-----	14,993	254,900
1957-----	599,735	14,993	-----	14,993	14,993	-----	14,993	269,893
1958-----	599,735	14,992	-----	14,992	14,992	-----	14,992	284,885
1959-----	599,735	14,993	-----	14,993	14,993	-----	14,993	299,878
1960-----	599,735	14,993	-----	14,993	14,993	-----	14,993	314,871
1961-----	599,735	14,993	-----	14,993	7,497	-----	7,497	322,368
1962-----	599,735	14,993	-----	14,993	14,993	\$7,496	22,489	344,857
1963-----	599,735	14,993	-----	14,993	14,993	-----	14,993	359,850
1964-----	599,735	14,993	-----	14,993	14,993	-----	14,993	374,843
1965-----	599,735	14,992	-----	14,992	14,992	-----	14,992	389,835
1966-----	599,735	14,993	-----	14,993	14,993	-----	14,993	404,828
1967-----	599,735	14,993	-----	14,993	14,993	-----	14,993	419,821
1968-----	599,735	14,993	-----	14,993	14,993	-----	14,993	434,814
1969-----	599,735	14,993	-----	14,993	14,993	-----	14,993	449,807
Total--	-----	449,807	-----	449,807	442,311	7,496	449,807	-----

¹ Obligation reduced to actual cost.

CACHUMA PROJECT

CALIFORNIA

The Cachuma project (originally called Cachuma unit, Santa Barbara project), is located near Goleta in southern Santa Barbara County, California. It was authorized on March 4, 1948, by the Secretary of the Interior pursuant to the Reclamation Project Act of 1939 (55 Stat. 1187). On March 24, 1948, the Secretary submitted his findings of feasibility to the Congress of the United States. The purpose of this project is to furnish new and supplemental domestic and irrigation water to the project area.

Cachuma Dam and Reservoir, with a capacity of 204,900 acre-feet, stores surplus floodwaters of the Santa Ynez River after prior rights have been satisfied in the Santa Ynez Valley. Water is diverted through the 6.4-mile Tecolote tunnel to the south coast area. From the tunnel outlet the water is carried through the 26-mile South Coast conduit, supplying water to the Goleta, Montecito, Summerland, and Carpinteria County Water Districts, and to the city of Santa Barbara. The Montecito County Water District had an existing irrigation distribution system adequate to handle project water. An extensive lateral distribution system has been constructed for irrigation use and for municipal and miscellaneous uses in Goleta, Summerland, and Carpinteria County Water Districts.

In 1969, the irrigable area for service on full supply lands was 500 acres, of which 64 acres were irrigated. The gross crop value of these lands totaled \$76,770 and the average value per acre amounted to \$1,199.53. Supplemental lands had 35,816 irrigable acres with 10,707 acres irrigated, and a gross crop value of \$13,676,518. The average value per acre was \$1,277.34.

Allocation of estimated project costs.—Inasmuch as the capital investment is considered totally reimbursable and non-interest bearing, no allocation between functions has been required of either the investment or repayment. Anticipated water sales over 50 years show 55.45 percent irrigation and 44.55 percent municipal

and industrial water. Distribution system costs allocated to municipal and industrial water service are interest bearing. Only the National Park Service costs for recreation studies are nonreimbursable.

Cost and Repayment:

<i>Feature</i>	<i>Amount</i>
Cachuma Dam and Reservoir	\$14,295,792
Tecolote tunnel	14,613,202
South Coast conduit-Goleta section	2,776,530
South Coast conduit-Carpinteria section	3,762,505
Glen Anne regulating reservoir	1,157,156
Lauro regulating reservoir	1,197,369
Ortega regulating reservoir	961,021
Carpinteria regulating reservoir	465,473
Goleta distribution system	2,839,602
Carpinteria distribution system	1,475,956
Summerland distribution system	253,222
Facilitating structures and improvements	68,586
Moveable property	12,432
Acquisition of additional right-of-way	4,855
Welch ranch house	13,237

Total plant costs	43,896,938
Recreation investigations, National Park Service ..	13,788

Total cost	43,910,726
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Allocation based on anticipated water sales:

Reimbursable costs:	
Irrigation	24,339,492
Municipal water supply	19,557,446

Subtotal	43,896,938
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Nonreimbursable:	
Recreation	13,788

Total	43,910,726
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Repayment realized June 30, 1969:

Repayment contracts matured	\$866,508
Contributions	100,974
Excess income over expense	4,352,430
Reserves for depreciation	6,746

Total repayment to June 30, 1969	5,326,658
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Anticipated future repayment:

Repayment contracts, unmatured	\$3,706,356
Excess income over expense	34,863,924
Total anticipated	38,570,280
Total repayment	43,896,938

The distribution systems were constructed by the Bureau of Reclamation under separate repayment contracts with the individual county water districts involved. Project repayment will be accomplished under water service contracts with the Santa Barbara County Water Agency delivering water to the individual districts. This agency entered into a master water service contract with the United States on September 12, 1949, and in turn has entered into subcontracts with the city of Santa Barbara and the Goleta, Carpinteria, Montecito, and Summerland County Water Districts and the Santa Ynez River Water Conservation District for the purpose of constructing works and supplying water.

By contract dated February 24, 1956, the Bureau transferred operation and maintenance of the project, except Cachuma Dam, to the water users. The operating group is the Cachuma Operation and Maintenance Board, made up of members from the Santa Barbara County Water Agency and its member units. Operations are financed with funds withheld from advance payments for water after approval, by the Bureau, of the annual operating budget. Adjustments are made each year to account for the actual operating costs of the previous year.

Repayment and water service contracts.—A 40-year contract under section 9(e) and 9(c)2 of the Reclamation Project Act of 1939 (55 Stat. 1187) has been executed with the Santa Barbara County Water Agency which requires a gradually increasing minimum use of water by the member districts.

Contracts covering the costs of construction of the distribution systems under section 9(d) of the Reclamation Project Act of 1939 (55 Stat. 1187) have been executed with the Goleta, Summerland, and Carpinteria County Water Districts.

Construction of Tecolote tunnel made available seepage water, which is being delivered under contract to the various water districts and the city of Santa Barbara. Receipts from the tunnel water contribute to project repayment.

CONTRACTS AND NOTICES

1949, September 12: Water service contract with Santa Bar-

bara County Water Agency for 40 years pursuant to section 9(e) of the Reclamation Project Act of 1939. Contract period begins May 15, 1955, and expires May 14, 1995. Initial water delivery February 28, 1956.

Maximum water rates:

Irrigation	\$25 per acre-foot
Municipal	\$35 per acre-foot

Minimum water deliveries:

After 5th year	8,700 acre-feet.
After 10th year	12,400 acre-feet.
After 15th year	16,000 acre-feet.
After 20th year	19,300 acre-feet.
After 25th year	22,900 acre-feet.
After 30th year	26,300 acre-feet.
After 35th year	29,200 acre-feet.

Maximum quantity limited by supply. Includes 500 acre-feet for Santa Ynez River Water Conservation District at a rate of \$10 per acre-foot.

1952, April 10: Contract I75-4561 with Goleta County Water District for \$3,600,000 for distribution system.

1953, April 17: Contract 14-06-200-550 with Carpinteria County Water District for \$1,800,000 for distribution system.

1953, June 29: Contract 14-06-200-994 with Summerland County Water District for \$400,000 for distribution systems.

1959, April 9: Letter notice to Summerland County Water District that final construction obligation, under contract dated June 29, 1953, was determined to be \$253,221.92.

1960, September 12: Letter notice to Carpinteria County Water District that final construction cost was determined to be \$1,475,763.98.

1962, December 20: Letter notice to Goleta County Water District that new estimated construction cost is \$2,840,000.

1963, August 2: Letter notice to Carpinteria County Water District that revised final construction cost was determined to be \$1,475,956.

1965, February 5: Letter notice to Goleta County Water District that final construction cost was determined to be \$2,839,602.

1968, December 12: A court judgment in the amount of \$4,084.02 was added to Goleta County Water District's 9(d) contract, bringing the final cost to be repaid to \$2,843,686.02.

Summary of status of distribution system repayment contracts:

Total value of contracted repayment	\$4,572,864
Total matured charges	866,509
Total matured charges repaid	866,509
Total matured charges unpaid	0

Payout schedule.—The cost of the water supply facilities is to be returned to the United States under a water sales contract with the Santa Barbara County Water Agency, which in turn sells the water to its member units. This 40-year contract will, to the extent necessary, be renewed by a subsequent contract with the same organization to insure the full return of the

Government's investment.

Small Reclamation Projects.—Two loans relating to districts in the Cachuma project area have been approved under the Small Projects Act, Public Law 84-984 (70 Stat. 1044), as amended.

The Goleta County Water District constructed a distribution system to serve lands lying to the west of the original district. Construction has been completed, and the amount to be repaid over a 40-year period is \$1,626,343. The contract for repayment of the loan was executed April 29, 1959 (contract 14-06-200-7723).

The contract with Santa Ynez River Water Conservation District for a loan for construction of works was executed on March 16, 1960 (contract 14-06-200-8253). This system, completed in June 1965, serves agriculture and municipal and industrial water to consumers in the vicinity of Santa Ynez, Solvang, and Los Olivos. The amount of the loan is \$3,796,382, to be repaid over a 40-year period. Costs allocated to municipal and industrial water are interest bearing. Costs allocated to irrigation are interest free except for costs which are attributable to furnishing irrigation benefits to land in excess of 160 acres held by any one owner.

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—CARPINTERIA COUNTY WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1957-----	\$1,800,000	\$2,557	-----	\$2,557	\$2,557	-----	\$2,557	\$2,557
1958-----	1,800,000	2,557	-----	2,557	2,557	-----	2,557	5,114
1959-----	1,800,000	2,557	-----	2,557	2,557	-----	2,557	7,671
1960-----	1,800,000	2,557	-----	2,557	2,557	-----	2,557	10,228
1961-----	1,475,764	36,996	-----	36,996	36,996	-----	36,996	47,224
1962-----	1,475,764	36,895	-----	36,895	36,895	-----	36,895	84,119
1963-----	1,475,764	36,894	-----	36,894	36,894	-----	36,894	121,013
1964-----	1,475,956	36,914	-----	36,914	36,914	-----	36,914	157,927
1965-----	1,475,956	36,899	-----	36,899	36,899	-----	36,899	194,826
1966-----	1,475,956	36,899	-----	36,899	36,899	-----	36,899	231,725
1967-----	1,475,956	36,899	-----	36,899	36,899	-----	36,899	268,624
1968-----	1,475,956	36,899	-----	36,899	36,899	-----	36,899	305,523
1969-----	1,475,956	36,899	-----	36,899	36,899	-----	36,899	342,422
Total-----	-----	342,422	-----	342,422	342,422	-----	342,422	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—GOLETA COUNTY WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1963-----	\$2,840,000	\$71,000	-----	\$71,000	\$71,000	-----	\$71,000	\$71,000
1964-----	2,840,000	71,000	-----	71,000	71,000	-----	71,000	142,000
1965-----	2,839,602	70,968	-----	70,968	70,968	-----	70,968	212,968
1966-----	2,839,602	70,990	-----	70,990	70,990	-----	70,990	283,958
1967-----	2,839,602	70,992	-----	70,992	70,992	-----	70,992	354,950
1968-----	2,839,602	70,990	-----	70,990	70,990	-----	70,990	425,940
1969-----	2,843,686	71,110	-----	71,110	71,110	-----	71,110	497,050
Total-----	-----	497,050	-----	497,050	497,050	-----	497,050	-----

REPAYMENT OF RECLAMATION PROJECTS

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY--SUMMERLAND COUNTY WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1962-----	\$253,222	\$1,794	-----	\$1,794	\$1,794	-----	\$1,794	\$1,794
1963-----	253,222	2,506	-----	2,506	2,506	-----	2,506	4,300
1964-----	253,222	1,839	-----	1,839	1,839	-----	1,839	6,139
1965-----	253,222	1,621	-----	1,621	1,621	-----	1,621	7,760
1966-----	253,222	2,168	-----	2,168	2,168	-----	2,168	9,928
1967-----	253,222	5,703	-----	5,703	5,703	-----	5,703	15,631
1968-----	253,222	5,703	-----	5,703	5,703	-----	5,703	21,334
1969-----	253,222	5,703	-----	5,703	5,703	-----	5,703	27,037
Total--	-----	27,037	-----	27,037	27,037	-----	27,037	-----

CANADIAN RIVER PROJECT

TEXAS

The construction of the Canadian River project in the Panhandle Plains area of Texas was authorized by Congress, Public Law 81-898 (64 Stat. 1124), December 29, 1950. Pursuant to this act, the President on December 18, 1962, approved the plan for development of the fish and wildlife resources, and Public Law 88-536 (78 Stat. 744), August 31, 1964, authorized construction of recreational facilities. The project features include Sanford Dam and Lake Meredith on the Canadian River and an aqueduct system to deliver 103,000 acre-feet of water annually for municipal and industrial uses to the cities of Amarillo, Borger, Brownfield, Lamesa, Levelland, Lubbock, O'Donnell, Pampa, Plainview, Slaton, and Tahoka. In conjunction therewith, the project provides flood protection to lands and improvements, protection for fish and wildlife resources, and recreational facilities.

The total estimated project cost, including \$7,218,000 for interest during construction, is \$91,823,000. Costs allocated to municipal and industrial water purposes will be repaid within a 50-year period under terms of the repayment contract. Costs allocated to flood control, fish and wildlife facilities, and recreational facilities are nonreimbursable.

Operation and maintenance of the project was transferred to the Canadian River Municipal Water Au-

thority on July 1, 1968. An annual credit is given to finance the nonreimbursable O&M costs.

CONTRACTS

1960, November 28: Contract 14-06-500-485 with the Canadian River Municipal Water Authority for repayment of reimbursable construction costs, plus interest in 50 successive annual installments, due October 1 of each year following completion of construction.

1967, December 11: Contract 14-06-500-1471 with the Canadian River Municipal Water Authority provides for waiver of interest on a part of the Authority's obligation under terms of the Water Supply Act of 1958.

Payout schedule.—Under the terms of the repayment contract, the maximum allowable value of the water users' obligation is \$92,960,000, plus interest during construction and annual interest on the unamortized balance of the cost allocated to municipal water. The municipal and industrial water obligation is to be repaid in 50 successive annual installments. Payment will be made by variable annual installments for the first 19 years, and nearly constant annual installments the last 31 years. All operation, maintenance, and replacement costs will be paid by the water users. Credits will be given annually to recognize the nonreimbursable costs allocated to fish and wildlife and flood control.

REPAYMENT OF RECLAMATION PROJECTS

Summary of status of repayment contract:

Total value of contracted repayment	\$84,820,440
Total matured charges	0

Statement of cost and repayment:

Cost:

Sanford Dam and Reservoir	\$32,895,666
Municipal and industrial water plant:	
Pumping plants	5,902,749
Pipelines	41,737,557
Interest during construction	3,813,311
Other M & I plant	3,193,875
Fish and wildlife plant	853,440
Recreation facilities	1,072,514
Estimated cost to complete construction	2,264,612
Subtotal, plant, property, and equipment ..	91,733,724
Property transfers	89,276
Total cost	<u>91,823,000</u>

Allocation:

Reimbursable: Municipal water supply	84,873,751
Nonreimbursable:	
Flood control	2,876,138
Fish and wildlife	2,973,111
Recreation	1,100,000

Repayment and other credits:

Repayment realized:	
Other repayment	108,149
Contributions	28,412
Subtotal repayment realized	136,561
Repayment contracts unmatured	84,820,440
Total repayment	84,957,001
Nonreimbursable	6,949,249
Total repayment and other credits	<u>91,906,250</u>
Surplus	83,250

CARLSBAD PROJECT

NEW MEXICO

The Carlsbad project was originally constructed by a private development company, but was damaged extensively by floodwaters in October 1904. On November 28, 1905, the Secretary of the Interior authorized purchase and rehabilitation of the project. It was reapproved by the President January 5, 1911.

The Bureau of Reclamation work included rehabilitation of the canal and distribution systems and the Avalon and McMillan Reservoirs in Eddy County to provide a full water supply to irrigate 25,055 acres of land. Of the 25,055 acres of irrigation service land, 22,216 acres were irrigated during the 1969 crop year, with gross crop value of \$2,118,351 and an average of \$140.37 per irrigated acre. The Alamogordo Dam, approved by the President on November 6, 1935, was constructed on the Pecos River in De Baca County approximately 250 river miles upstream from Carlsbad, N. Mex., to augment storage facilities of the project. Public Law 465, 83d Congress (July 1, 1954), provided for enlarging the spillway of Alamogordo Dam on a nonreimbursable basis to accommodate floods of major proportions.

The United States operated the Carlsbad project until September 30, 1949, at which time the Carlsbad Irrigation District assumed responsibility for the care, operation, and maintenance of the project, except for Alamogordo Dam. Alamogordo Dam is operated and maintained by the United States with nonreimbursable annual appropriated funds for the flood control portion and funds advanced by the water users for the irrigation portion, on the same basis as allocation of construction costs.

The total cost of the project is as follows:

Irrigation facilities	\$8,279,008
Spillway enlargement	1,007,612
Health and safety facilities	24,375
Plant loss	21,408

Total construction cost	9,332,403
Funded operation and maintenance	76,541
Funded penalties	16,855
Total cost	<u>9,425,799</u>

Allocation of costs:

Reimbursable costs—Irrigation:	
Repayment contract	7,788,418
Contributions	7,980
Water and miscellaneous income	47,006
Subtotal	<u>7,843,404</u>
Nonreimbursable costs:	
Flood control	1,007,612
Irrigation—C.C.C. costs	175,524
Chargeoff by Congress	374,884
Health and safety	24,375
Subtotal	<u>1,582,395</u>
Total	<u>9,425,799</u>

PUBLIC NOTICES AND CONTRACTS

- 1907, December 17: Public notice. Construction charge \$31 per acre, payable in 10 equal annual installments.
- 1912, February 17: Public notice. Construction charge increased to \$45 per acre, payable in 10 graduated annual installments.
- 1915, April 10: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1916, September 2: Public notice. Supplemental construction. Rate \$10 per acre, payable in additional installments after 20-year repayment period.
- 1919, June 24: Public notice. Construction charge \$69 per acre, payable in 20 graduated annual installments.
- 1932, November 14: Contract Ilr-717 with Carlsbad Irrigation District. District assumed obligations under individual water-right applications. Unpaid construction and operation and maintenance charges for 1930 and 1931 to be paid in 5 and 8 years with 6 percent interest.
- 1936, January 16: Supplemental contract Ilr-717 with Carlsbad Irrigation District. Covers construction of Alamogordo Reservoir and concrete lining of canals at estimated cost of \$2,500,000. Payable in semiannual installments in 40 years, beginning in 1944, with due dates of February 1 and August 1.

- 1943, October 5: Contract with Carlsbad Irrigation District. Maximum obligation under 1936 contract raised to \$2,600,000; beginning of repayment deferred to year 1946.
- 1955, May 10: Contract 14-06-500-168 with Carlsbad Irrigation District for \$25,000 for rehabilitation accomplished by emergency funds. Repayable in 25 annual installments, to be paid semiannually on February 1 and August 1, commencing in 1956.
- 1967, May 25: Contract 14-06-500-1411 with Carlsbad Irrigation District for \$41,474 for emergency rehabilitation of laterals. Payable in 19 equal annual installments beginning in calendar year 1968, with one-half due on February 1 and one-half due August 1.
- 1968, May 21: Contract 14-06-500-1518 with Carlsbad Irrigation District for \$4,000,000 for rehabilitation of laterals. Payable in 46 successive annual payments, with one-half payable on August 1. The first installment shall become due and payable August 1, 1974.

Repayment contracts.—The total actual cost of constructing and rehabilitating the original project was covered in public notices and the 1932 repayment contract. The total actual cost of constructing Alamo-

gordo Dam was covered in the 1936 supplemental repayment contract.

Repayment on the original contract in the amount of \$1,464,650 began in 1910. Final payment by the Carlsbad Irrigation District, due in 1946 under the 1932 contract, has been made. The amended supplemental repayment contract was signed on October 5, 1943, in the amount of \$2,600,000, to be repaid in 40 equal annual installments beginning in 1946. By letter dated September 6, 1957, the District was advised of the final construction cost and the repayment obligation of the District was established at \$2,580,183 under the 1936 supplemental contract.

Additional contracts have been entered into which cover flood damage to Dark Canyon Siphon and rehabilitation of the laterals.

Summary of status of repayment contracts:

Total value of contracted repayment	\$7,788,418
Total matured charges	2,565,813
Total matured charges repaid	2,565,813
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1910		\$97,467		\$97,467	\$48,549		\$48,549	\$48,549
1911		89,646		89,646	409	\$32,333	32,742	81,291
1912		1,008	¹ \$181,031	¹ 180,023	121	¹ 76,945	¹ 76,824	² 4,467
1913		72,331	² 4,284	68,047	8,032	¹ 2,059	5,973	10,440
1914		40,027	¹ 1,361	38,666	17,679	43,849	61,528	71,968
1915	\$923,763	585	13,618	14,203	585	43,557	44,142	³ 116,110
1916	1,047,780	26,146	¹ 650	25,496	14,208	8,504	22,712	138,822
1917	1,287,175	22,132	¹ 1,577	20,555	8,899	12,103	21,002	159,824
1918	1,305,700	19,175	² 5,024	14,151	11,555	9,209	20,764	180,588
1919	1,339,290	33,593	162	33,755	19,586	7,783	27,369	207,957
1920	1,410,999	35,189	319	35,508	28,686	14,058	42,744	250,701
1921	1,409,501	53,102	¹ 2,577	50,525	19,114	2,360	21,474	272,175
1922	1,409,501	55,442	¹ 207	55,235	18,100	31,357	49,457	321,632
1923	1,423,893	56,715	¹ 2,050	54,665	26,800	34,036	60,836	382,468
1924	1,423,893	57,674	¹ 135	57,539	37,865	31,835	69,700	452,168
1925	1,424,313	58,100		58,100	44,613	22,747	67,360	519,528
1926	1,425,183	60,783		60,783	35,244	13,028	48,272	567,800
1927	1,425,183	62,589		62,589	28,231	25,925	54,156	621,956
1928	1,425,183	63,583	50	63,633	32,729	34,961	67,690	689,646
1929	1,425,183	65,195		65,195	31,117	30,688	61,805	751,451
1930	1,425,183	66,640	¹ 2,046	64,594	31,701	33,728	65,429	816,880
1931	1,425,183	68,051	1,862	69,913	25,997	34,636	60,633	877,513
1932	1,425,183	68,041		68,041	7,636	1,888	9,524	887,037
1933	1,053,197	⁴ 52	¹ 104,966	¹ 104,914	52	¹ 3,917	¹ 3,865	883,172
1934	1,113,134	⁴ 1,603		1,603	1,603	124	1,727	884,899
1935	1,113,132	⁴ 723		723	723	73	796	885,695
1936	⁵ 3,631,180	⁴ 16		16	16		16	885,711
1937	3,641,761	⁴ 1,707		1,707	1,707		1,707	887,418
1938	3,641,761	15,699		15,699	4,309		4,309	891,727
1939	3,641,761	14,967		14,967	8,136	9,861	17,997	909,724
1940	3,641,761	14,474		14,474	7,263	8,361	15,624	925,348
1941	3,641,761	29,203		29,203	15,830	7,210	23,040	948,388
1942	3,641,761	43,728		43,728	27,882	13,373	41,255	989,643
1943	3,641,761	43,166		43,166	28,494	15,846	44,340	1,033,983
1944	3,741,761	42,254		42,254	28,151	14,672	42,823	1,076,806
1945	3,741,761	31,417		31,417	22,347	14,103	36,450	1,113,256
1946	3,741,761	43,606		43,606	9,095	19,664	28,759	1,142,015
1947	3,741,761	65,512	43,158	108,670	65,512	44,144	109,656	1,251,671
1948	3,741,761	64,558		64,558	50,662	22,930	73,592	1,325,263
1949	3,741,761	64,116		64,116	57,350	13,896	71,246	1,396,509
1950	3,741,761	64,117		64,117	64,117	6,767	70,884	1,467,393
1951	3,741,761	64,116		64,116	64,116		64,116	1,531,509
1952	3,741,761	64,117		64,117	64,117		64,117	1,595,626
1953	3,741,761	⁶ 63,861		63,861	63,861		63,861	1,659,487
1954	3,741,761	64,070		64,070	64,070		64,070	1,723,557
1955	⁷ 3,766,761	⁸ 32,035		32,035	32,035		32,035	1,755,592
1956	3,766,761	32,535		32,535	32,535		32,535	1,788,127
1957	3,766,761	65,070		65,070	65,070		65,070	1,853,197
1958	⁹ 3,746,944	70,181	¹ 5,111	65,070	65,070		65,070	1,918,267
1959	3,746,944	64,014		64,014	64,014		64,014	1,982,281
1960	3,746,944	64,362		64,362	64,362		64,362	2,046,643
1961	3,746,944	64,362		64,362	64,362		64,362	2,111,005
1962	3,746,944	64,362		64,362	64,362		64,362	2,175,367
1963	3,746,944	64,362		64,362	64,362		64,362	2,239,729
1964	3,746,944	64,362		64,362	64,362		64,362	2,304,091
1965	3,746,944	64,362		64,362	64,362		64,362	2,368,453
1966	3,746,944	¹² 32,681		32,681	32,681		32,681	2,401,134
1967	¹⁰ 3,894,944	32,181		32,181	32,181		32,181	2,433,315
1968	¹¹ 7,788,418	65,953		65,953	65,953		65,953	2,499,268
1969	7,788,418	66,545		66,545	66,545		66,545	2,565,813
Total		2,817,663	¹ 251,850	2,565,813	1,989,125	576,688	2,565,813	

¹ Decrease. Decreases are due to funding of charges and to cancellation of water-right applications.

² 1912. Accruals canceled under 1912 public notice.

³ 1915. Reclamation Extension Act, Aug. 13, 1914.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$38,930; 1933, \$42,226; 1934, \$40,840; 1935, \$40,481; 1936, \$20,061.

⁵ Increase in obligation due to adding \$2,500,000 for Alamogordo Reservoir, etc., under 1936 contract.

⁶ To correct prior error in computations.

⁷ Rehabilitation contract executed for work on McMillan Dike.

⁸ Scheduled accruals for calendar year 1955 deferred and rescheduled to Aug. 1, 1986, and Feb. 1, 1987.

⁹ Decrease to adjust repayment and revenue accounts pursuant to final cost notice for Supplemental Contract II-717 dated Jan. 16, 1936, amended Oct. 5, 1943.

¹⁰ Increase due to emergency rehabilitation program.

¹¹ Increase due to rehabilitation and betterment program.

¹² Scheduled accruals for calendar year 1966 deferred in 30 consecutive semiannual installments, the first of which is due Aug. 1, 1971.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1909	\$7,626	
1910	27,828	\$32,924
1911	34,000	36,510
1912	6,232	6,252
1913	20,311	15,195
1914	19,760	20,919
1915	18,117	11,684
1916	18,915	15,991
1917	32,021	22,558
1918	23,918	34,792
1919	30,912	30,156
1920	40,056	42,708
1921	56,424	21,377
1922	57,768	37,302
1923	53,848	69,142
1924	54,505	80,378
1925	51,227	64,476
1926	38,022	37,565
1927	40,556	36,037
1928	42,244	42,771
1929	39,233	37,836
1930	45,251	43,604
1931	56,508	43,862
1932	59,187	16,353
1933	¹ 86	73,861
1934	23,103	23,185
1935	35,919	35,967
1936	40,190	40,190
1937	24,606	24,606
1938	30,855	30,855
1939	56,769	56,769
1940	46,690	46,690
1941	41,212	41,212
1942	41,380	41,380
1943	53,507	53,507
1944	65,451	65,451
1945	58,899	58,899
1946	58,720	58,720
1947	79,875	79,875
1948	82,078	82,078
1949	81,934	81,934
1950	45,458	45,458
1951	13,373	13,373
1952	7,200	7,200
1953	10,038	10,038
1954	10,500	10,500
1955	8,622	8,622
1956	7,234	7,234
1957	8,547	8,547
1958	8,895	8,895
1959	10,553	10,553
1960	7,276	7,276
1961	10,206	10,206
1962	10,342	10,342
1963	9,035	9,035
1964	5,706	5,706
1965	9,375	9,375
1966	9,725	9,725
1967	11,272	11,272
1968	10,375	10,375
1969	10,844	10,844
Total	1,920,147	1,920,147

¹ Decrease.

PAYOUT STUDY

PAYOUT STUDY—Continued

Fiscal year	Net revenues from irrigation water users	Irrigation costs at end of year	Interest-free balance to be repaid
1909			
1910	\$48,549		—\$48,549
1911	32,742		—81,291
1912	¹ 76,824		—4,467
1913	5,973		—10,440
1914	61,528		—71,968
1915	44,142	\$981,729	807,653
1916	22,712	1,063,268	908,958
1917	21,002	1,235,424	1,127,351
1918	20,764	1,379,537	1,125,112
1919	27,369	1,381,524	1,131,333
1920	42,744	1,389,245	1,160,298
1921	21,474	1,418,161	1,137,326
1922	49,457	1,418,747	1,087,869
1923	60,836	1,418,697	1,041,425
1924	69,700	1,418,697	971,725
1925	67,360	1,438,665	904,785
1926	48,272	1,458,996	857,383
1927	54,156	1,464,166	803,227
1928	67,690	1,464,523	735,537
1929	61,805	1,464,523	673,732
1930	65,429	1,464,650	608,303
1931	60,633	1,464,650	547,670
1932	9,524	1,464,650	538,146
1933	¹ 3,865	1,464,650	170,025
1934	1,727	1,464,650	228,235
1935	796	1,464,650	227,437
1936	16	1,634,422	2,745,469
1937	1,707	3,057,195	2,754,343
1938	4,309	3,568,658	2,750,034
1939	17,997	3,664,159	2,732,037
1940	15,624	3,808,703	2,716,413
1941	23,040	3,880,685	2,693,373
1942	41,255	3,912,180	2,652,118
1943	44,340	3,942,835	2,607,778
1944	42,823	3,951,161	2,664,955
1945	36,450	3,984,916	2,628,505
1946	28,759	3,990,096	2,599,746
1947	109,656	3,992,735	2,490,090
1948	73,593	3,992,870	2,416,497
1949	71,247	4,007,008	2,345,250
1950	70,884	3,995,460	2,274,366
1951	64,116	4,002,866	2,210,250
1952	64,116	4,041,275	2,146,134
1953	63,860	4,222,467	2,082,274
1954	64,070	4,221,792	2,018,204
1955	32,035	4,220,930	2,011,169
1956	32,535	4,216,743	1,978,634
1957	65,070	4,231,980	1,913,564
1958	65,070	4,231,980	1,828,677
1959	64,014	4,231,980	1,764,663
1960	64,362	4,231,980	1,700,301
1961	64,362	4,324,876	1,635,939
1962	64,362	4,328,324	1,571,577
1963	64,362	4,328,398	1,507,215
1964	64,362	4,328,908	1,442,853
1965	64,362	4,329,223	1,378,491
1966	32,681	4,329,238	1,345,810
1967	32,181	4,329,238	1,461,629
1968	65,953	4,372,404	5,289,150
1969	66,545	4,513,149	5,222,605
Subtotal	2,565,813		
1970	66,545	5,162,149*	* 5,156,060
1971	66,545	6,062,149	5,089,515
1972	70,769	7,062,149	5,018,746
1973	70,769	8,062,149	4,947,977
1974	73,269	8,372,404	4,874,708

Fiscal year	Net revenues from irrigation water users	Irrigation costs at end of year	Interest-free balance to be repaid
1975	75,269	8,372,404	4,799,439
1976	77,269	8,372,404	4,722,170
1977	79,269	8,372,404	4,642,901
1978	81,269	8,372,404	4,561,632
1979	83,269	8,372,404	4,478,363
1980	85,269	8,372,404	4,393,094
1981	86,769	8,372,404	4,306,325
1982	88,769	8,372,404	4,217,556
1983	90,769	8,372,404	4,126,787
1984	92,769	8,372,404	4,034,018
1985	94,769	8,372,404	3,939,249
1986	96,773	8,372,404	3,842,476
1987	99,225	8,372,404	3,743,251
1988	115,600	8,372,404	3,627,651
1989	115,600	8,372,404	3,512,051
1990	115,600	8,372,404	3,396,451
1991	115,600	8,372,404	3,280,851
1992	115,600	8,372,404	3,165,251
1993	115,600	8,372,404	3,049,651
1994	115,600	8,372,404	2,934,051
1995	115,600	8,372,404	2,818,451
1996	115,600	8,372,404	2,702,851
1997	115,600	8,372,404	2,587,251
1998	115,600	8,372,404	2,471,651
1999	115,600	8,372,404	2,356,051
2000	115,600	8,372,404	2,240,451
2001	115,600	8,372,404	2,124,851
2002	115,600	8,372,404	2,009,251
2003	115,600	8,372,404	1,893,651
2004	115,600	8,372,404	1,778,051
2005	115,600	8,372,404	1,662,451
2006	115,600	8,372,404	1,546,851
2007	115,600	8,372,404	1,431,251
2008	115,600	8,372,404	1,315,651
2009	115,600	8,372,404	1,200,051
2010	115,600	8,372,404	1,084,451
2011	115,600	8,372,404	968,851
2012	115,600	8,372,404	853,251
2013	115,600	8,372,404	737,651
2014	115,600	8,372,404	622,051
2015	136,300	8,372,404	485,751
2016	136,300	8,372,404	349,451
2017	136,300	8,372,404	213,151
2018	136,300	8,372,404	76,851
2019	76,851		
Total	7,788,418		

* Added programmed amounts thru 1974 to Irrigation costs column.
¹ Decrease.

CENTRAL UTAH PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

UTAH

Construction of the Central Utah project (initial phase) in northeastern Utah was authorized as a participating project of the Colorado River Storage Project by the act of April 11, 1956 (70 Stat. 105).

Purpose of the Central Utah project (initial phase) is to develop water resources tributary to the Colorado River for use in the Uinta Basin (a portion of the Colorado River Basin) in the eastern part of the adjoining Bonneville Basin. The water resources developed are now or will be utilized for irrigation and for municipal, industrial, and related purposes in the project area and for the production of hydroelectric energy. The project also will benefit flood control, fish and wildlife, and recreation.

The Vernal unit is completed, the Bonneville unit is under construction, and construction plans for the Upalco and Jensen Units are being formulated. Both latter units will primarily provide additional irrigation water to lands already being irrigated. (For Uintah unit, see page 109.)

BONNEVILLE UNIT

The Bonneville unit is located principally in the Bonneville Basin. It will increase useable water supplies in the Uinta and Bonneville Basins by means of regulatory storage works and conveyance facilities. Construction was approved as part of the initial phase of the Central Utah project, which was authorized as a participating project of the Colorado River Storage Project by the act of April 11, 1956 (70 Stat. 105).

Major features of the unit consist of Starvation Dam and Reservoir with a capacity of 167,300 acre-feet, a diversion dam on the Duchesne River, and a feeder canal extending from the diversion dam to the reservoir, which are now completed; Upper Stillwater Dam

and Reservoir with 29,500 acre-feet capacity; Currant Creek Dam and Reservoir with 15,500 acre-feet capacity; the Soldier Creek Dam and Strawberry Reservoir enlargement which will increase the capacity to 856,000 acre-feet. The Diamond Fork Power System includes three powerplants, Syar, Sixth Water, and Dyne with a total rated capacity of 133,000 kilowatts.

Other major features include Strawberry Aqueduct, Syar Tunnel, Hayes Dam and Reservoir, Wasatch Aqueduct, Mona Dam and Reservoir enlargement, and Jordanelle Dam and Reservoir. In addition, there are several dikes, pumping plants, canals, and laterals. These features will provide supplemental irrigation water to about 112,790 acres and a full supply to about 43,740 acres, making a total irrigable area of about 156,530 acres. Benefits in addition to those accruing to irrigation will accrue to municipal and industrial water usage, power, flood control, fish and wildlife and recreation, water quality control and area development.

Many years will be required to complete the unit. Bottle Hollow and Lower Stillwater Reservoirs are planned as recreation reservoirs to mitigate stream fishery losses on Uintah and Ouray Indian Reservation lands. These reservoirs will provide 800 surface acres for fishing. Bottle Hollow Dam and Reservoir, now under construction, will provide 420 surface acres and a capacity of 11,100 acre-feet. Lower Stillwater Reservoir will have a capacity of 12,460 acre-feet. Total cost of the unit is estimated at \$340,478,200. In addition, other agency costs under section 8 of the authorizing act are estimated to be \$18,446,200.

The Central Utah Water Conservancy District embraces all or parts of twelve counties. As project features are completed and water sold by the District becomes available, development blocks will be estab-

lished as needed, with the development period ranging from 3 to 8 years as considered appropriate for the lands of each irrigation block.

CONTRACTS

- 1965, December 28: Contract 14-06-400-4286 with the Central Utah Water Conservancy District for repayment of \$130,673,000 (subject to escalation), to be paid in not more than 50 years by blocks.
- 1966, April 15: Contract 14-06-400-4286, amended, to provide for the District's contribution of \$40,000 towards construction of the project and to reduce the District's repayment obligation by the same amount.

Statement of cost and repayment:

Cost:	Amount
Multipurpose features:	
Starvation Dam and Reservoir	\$20,170,000
Upper Stillwater Dam and Reservoir	13,120,000
Currant Creek Dam and Reservoir	5,930,000
Soldier Creek Dam, Strawberry Reservoir enlargement and collection works	68,850,000
Hayes Dam and Reservoir	11,930,000
Mona Dam and Reservoir	4,040,000
Goshen Bay dike	22,780,000
Jordanelle Dam and Reservoir	23,860,000
Wasatch Aqueduct (aqueduct portion)	18,760,000
Pelican Point pumping plant and canal	3,550,000
Other facilities	3,270,000
Total multipurpose	196,260,000
Municipal and industrial water features:	
Jordan Aqueduct system	21,000,000
Irrigation features	51,310,000
Power features:	
Syar Dam and Reservoir, powerplant and switchyard	19,720,000
Sixth Water Dam and Reservoir, powerplant and switchyards	16,940,000
Dyne powerplant and switchyard	9,350,000
Total power	46,010,000
Interest during construction	7,452,000
Total cost	322,032,000
Cost by other agencies—section 8	18,446,200
Total	340,478,200
Allocation:	
Reimbursable costs:	
Irrigation	178,172,000
Municipal and industrial water	76,624,000
Power	48,366,000
Total	303,162,000
Nonreimbursable costs:	
Flood control	3,474,000
Fish and wildlife (includes \$15,017,600—section 8)	29,383,600
Recreation—section 8	3,428,600
Highway relocation	1,030,000
Total	37,316,200

Repayment of reimbursable costs:

Central Utah Water Conservancy District	130,762,000
Power revenues:	
Upper Colorado River Basin Fund	63,529,518
Colorado River Development Fund	880,730
Bonneville Unit	107,847,000
Contributions and miscellaneous revenues ...	142,752
Total	303,162,000

VERNAL UNIT

Construction of the Vernal unit was begun in fiscal year 1959. Major features of the unit consist of the Fort Thornburgh Diversion Dam on Ashley Creek, Steinaker Dam and Reservoir with capacity of 37,560 acre-feet, Steinaker Feeder Canal extending 3 miles from the diversion dam to the reservoir, Steinaker Service Canal which extends for 11.8 miles delivering water to the project lands, and drainage facilities where needed. A 17-mile water savings pipe system for furnishing livestock water during the nonirrigation season was planned. However, prior to its construction, Vernal City in cooperation with the United States and the District undertook construction of the Ashley Valley Water System. Incorporated in it is sufficient capacity to meet the project needs which would have been fulfilled by the water savings pipe system and also provide culinary use services throughout the year. Minor benefits will accrue to fish and wildlife and recreation.

The project furnishes supplemental irrigation water to approximately 14,700 acres of classes 1, 2, and 3 land. A 3-year development period was provided.

The present irrigable area for service is 14,700 acres, with 13,396 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 is \$916,099 and 68.39, respectively.

The municipal water users agree to pay to the District a fair, proportionate amount of the estimated operation, maintenance, and reserve fund charges for each year of the 40-year payment period, said amount to be determined by the board of directors of the District. The determination shall be final and conclusive.

Vernal City operates and maintains the Ashley Valley water system. The District's share of operation and maintenance of the water system has been established at \$1,000 per year as its fair share. This amount shall be subject to renegotiation every 5 years.

Repayment contracts.—The contract with the Uintah Water Conservancy District was executed July 14, 1958. The estimated cost of the project is \$8,884,435. The District's obligation to the United States for irriga-

tion repayment is \$1,500,000, to be paid in 50 equal annual installments.

The District contracted for 1,600 acre-feet of water annually to supplement the available water supply for municipal use in Naples, Maeser, and Vernal with annual payments as follows:

Years 1-10, inclusive	\$23,900
Years 11-20, inclusive	\$27,700
Years 21-30, inclusive	\$31,500
Years 31-40, inclusive	\$35,470

Interest rate on the municipal water allocation is $3\frac{1}{4}$ percent with the provision that at the end of the 40-year period a new contract can be negotiated pursuant to section 9(c) of the Reclamation Act of 1939 (53 Stat. 1187). The first payment was made in 1963.

CONTRACTS AND NOTICES

- 1958, July 14: Contract 14-06-400-778 with the Uintah Water Conservancy District for repayment of \$1,500,000 in 50 equal annual installments. It also specified the payment obligation for 1,600 acre-feet of municipal water at the above listed annual rate.
- 1961, August 29: Contract 14-06-400-2007 among the United States, the Uintah Water Conservancy District, and Vernal City for construction and use of the Ashley Valley Water System, constructed by Vernal City in lieu of the project's water savings pipe system, operated by the City of Vernal with payment by the District of \$1,000 annually to the City of Vernal for operating the system.
- 1962, June 22: Letter notice to the District announcing the 3-year development period would commence January 1, 1963.
- 1963, June 21: Supplemental contract among the United States, the Uintah Water Conservancy District, and Vernal City for installment of suitable measuring facilities for livestock watering connections; the United States and the District agree to pay certain amounts per unit.
- 1964, April 8: Contract 14-06-400-3713 among the United States, Maeser Town, and the Uintah Water Conservancy District to deliver livestock water and to furnish and install livestock water connections on the town system.
- 1964, May 13: Amendment to contract 14-06-400-2007 among the United States, the Uintah Water Conservancy District, and Vernal City to permit 150 locations for measuring facilities, of which 35 locations will be for Maeser Town.

1965, June 20: Letter notice to District announcing the termination of the development period December 31, 1965, and the first annual irrigation repayment installment would be due and payable on or before December 31, 1966.

1966, June 27: Notice was issued to the District announcing that operation and maintenance of project facilities would be turned over to them January 1, 1967.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,500,000
Total matured charges	91,433
Total matured charges repaid	91,433
Total matured charges unpaid	0

Statement of cost and repayment:

Feature	Amount
Steinaker Dam and Reservoir	\$3,417,864
Fort Thornburgh diversion dam	296,868
Steinaker feeder canal	899,169
Water sewage pipe system	473,617
Interest during construction	44,000
Subtotal multipurpose plant	5,131,518
Irrigation facilities	3,737,917
Total plant	8,869,435
Property transfers	15,000
Total estimated cost	8,884,435
Cost incurred by other agencies—section 8	295,994
Total	9,180,429
Allocation:	
Irrigation	\$8,010,382
Municipal and industrial water	685,000
Highway	1,053
Total	8,696,435
Nonreimbursable costs:	
Fish and wildlife	188,000
Section 8—Fish and wildlife	16,894
Recreation	279,100
Total	483,994
Repayment of reimbursable costs:	
Uintah Water Conservancy District	1,500,000
Power revenue:	
Upper Colorado River Basin Fund	6,429,286
Colorado River Development Fund	82,000
Municipal and industrial water sales	678,531
Contributions	6,618
Total	8,696,435

CONSTRUCTION REPAYMENT HISTORY—VERNAL UNIT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjust- ments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1967-----	\$1,506,000	\$31,433	-----	\$31,433	\$31,433	-----	\$31,433	\$31,433
1968-----	1,500,000	30,000	-----	30,000	30,000	-----	30,000	61,433
1969-----	1,500,000	30,000	-----	30,000	30,000	-----	30,000	91,433
Total--	-----	91,433	-----	91,433	91,433	-----	91,433	-----

CENTRAL VALLEY PROJECT

CALIFORNIA

The finding of feasibility authorizing initial features of the Central Valley project under the provisions of the Reclamation Act of December 5, 1924, was approved on December 2, 1935, by the President of the United States. Congressional reauthorization of the project under Reclamation law was provided in section 2 of the Rivers and Harbors Act of August 26, 1937 (50 Stat. 859), and by the Rivers and Harbors Act of October 17, 1940 (54 Stat. 1198). By act of October 14, 1949 (63 Stat. 852), Congress reauthorized the project to include the operation of Folsom Reservoir and the construction of Folsom Powerplant, Nimbus Dam and Powerplant, and the Sly Park unit of the American River and Cosumnes River Basins. By act of September 26, 1950 (64 Stat. 1036), Congress reauthorized the project to include the Sacramento River Canals unit. Additional works for waterfowl management were authorized by the act of August 27, 1954 (68 Stat. 879). The Trinity River division, the San Luis unit, and the Auburn-Folsom South unit were added as integral parts of the project by the acts of August 12, 1955, Public Law 84-386 (69 Stat. 719); June 3, 1960, Public Law 86-488 (74 Stat. 156); and September 2, 1965, Public Law 89-161 (79 Stat. 615), respectively. The act of August 19, 1969, Public Law 90-65 (81 Stat. 167), authorized extra capacity in Tehama-Colusa Canal to enable future water service to Yolo, Solano, Lake, and Napa Counties. The San Felipe division was added as an integral part of the project by the act of August 27, 1967, Public Law 90-72 (81 Stat. 173).

The features of the Central Valley project are a part of a multipurpose basin development. Presently authorized features, when complete and in full operation, will provide sufficient water so that approximately 2,470,000 irrigable acres of land may be irrigated. In addition, the project will provide water for municipal and industrial purposes and generate an average of 5,368,700,000 kilowatt-hours of hydroelectric energy

annually, as well as provide flood control, navigation, salinity control, fish and wildlife, and recreation benefits.

The initially authorized features consist of Shasta Dam, forming a reservoir of 4,500,000 acre-feet capacity; Shasta Powerplant of 422,310-kilowatt capacity; Keswick Dam and Reservoir with a capacity of 23,800 acre-feet; Keswick Powerplant of 75,000-kilowatt nameplate capacity; the Delta Cross Channel with a design capacity of 3,500 second-feet; the Contra Costa Canal and Pumping Plants with 350 second-feet initial capacity; the Tracy Pumping Plant with 4,600 second-feet capacity; and the 117-mile Delta-Mendota Canal with 4,600 second-feet initial capacity. Also initially authorized are Friant Dam and Reservoir with 520,500 acre-feet capacity; the 36-mile Madera Canal of 1,000 second-feet initial capacity; the 152-mile Friant-Kern Canal of 4,000 second-feet initial capacity; irrigation water distribution systems for the delivery of project water; and the electrical transmission system consisting of three 230-kilovolt lines between Shasta and Keswick and the Delta, together with essential substations, switchyards, and lower voltage transmission lines to insure dependable service to project pumping plants and other points of commercial sale. The reauthorization of October 14, 1949, added Folsom Dam and Reservoir, with 1,010,000 acre-feet capacity; Folsom Powerplant of 198,720 kilowatt capacity; and the Nimbus Dam and Powerplant of 13,500-kilowatt capacity; transmission lines to connect with the initial Central Valley project transmission system; and the Sly Park Dam and Reservoir with 41,000 acre-feet capacity on Sly Park Creek, a tributary of the Cosumnes River, a diversion dam on Camp Creek, a tunnel to carry water to Sly Park Reservoir and a conduit to convey water to the El Dorado Irrigation District. The reauthorization of September 26, 1950, added the Sacramento Canals unit, including Corning Canal, the Tehama-Colusa Canal, and the

Chico Canal, with diversion works, pumping plants, and distribution systems. Additional works for waterfowl management were authorized by the act of August 27, 1954. The act of August 12, 1955, added the Trinity River division, including Trinity Dam, Lewiston Diversion Dam, Whiskeytown Dam, Spring Creek Debris Dam, Lewiston Fish Hatchery, Clear Creek and Spring Creek Tunnels; and Trinity, Lewiston, Judge Francis Carr and Spring Creek Powerplants. Also included is a 230-kilovolt transmission system extending from Trinity, Judge Carr and Spring Creek Powerplants to Keswick, Cottonwood, Elverta, and Tracy. All Trinity division features are completed and are in operation.

The act of June 3, 1960, added the San Luis unit, including both Federal and Federal-State joint-use features. Federal facilities include the O'Neill Pumping Plant and intake channel and the Pleasant Valley Canal and Pumping Plant. Those features to be constructed for use by the Federal Government and the State of California are San Luis Dam and Reservoir, Pumping-Generating Plant with an installed generating capacity of 424,000 kilowatts, the Bureau's share of which is 202,000 kilowatts, and O'Neill Dam, and Pumping Plant with an installed generating capacity of 25,200 kilowatts for use as hydraulic energy dissipator during releases of water into the Delta-Mendota Canal, Dos Amigos Pumping Plant, and the San Luis Canal. All joint-use facilities were completed and placed in operation in 1968.

Construction began in 1967 on the Auburn-Folsom South unit. Auburn Dam, on the American River upstream from Folsom Dam, will provide additional flood protection for the Sacramento area. The 68-mile-long Folsom South Canal will deliver an additional 850,000 acre-feet of water annually for irrigation, municipal, and industrial use to large areas between Sacramento and Stockton and in the East San Francisco Bay area. Construction plans include a 300,000-kilowatt powerplant at Auburn, with an ultimate capacity of 750,000 kilowatts. More than \$19 million worth of recreation facilities will be provided, with the State sharing the cost.

The San Felipe division is planned to furnish about 295,000 acre-feet of water annually to the Santa Clara Valley and Pajaro River Basin south of San Francisco Bay. Water will be delivered through the Pacheco Tunnel. The mouth of the tunnel is beneath the water level in San Luis Reservoir. The division is not yet under construction.

All completed project features are now operated by

the United States except the Sly Park unit, which has been transferred to the water users for operation and maintenance. San Luis joint-use features are operated by the State of California Department of Water Resources under contract by which the United States pays 45 percent of the operation and maintenance costs. Operation and maintenance charges are financed by annual appropriations and are assigned to reimbursable and nonreimbursable functions as appropriate. Present repayment contracts provide that all distribution systems will transfer to water users for care, operation, and maintenance upon completion. By June 30, 1969, 16 distribution systems had been so transferred.

In 1969, the irrigable area for service, including full, supplemental, and temporary service lands, was 1,972,827 acres and 1,530,243 acres were irrigated. The gross crop value totaled \$542,223,371 and the average value per acre irrigated was \$354.34.

The cost of the Bureau-constructed water distribution systems will be repaid by contracts authorized by section 9(d) of the 1939 act. These systems will be repaid in 40 years after an appropriate development period.

Loan program.—Under Public Law 84-130, the act of July 4, 1955 (69 Stat. 244), as amended, nine agencies have received loans to construct distribution systems in the Central Valley project service area:

Contracting agency	Repayment contract executed	Maximum loan per contract
Terra Bella Irrigation District	Apr. 28, 1958---	\$1,900,000
Chowchilla Water District	Nov. 25, 1959---	3,250,000
Saucelito Irrigation District	Do -----	4,650,000
Proberta Water District	Nov. 6, 1961---	600,000
Garfield Water District	Mar. 9, 1962---	432,800
Arvin-Edison Water District	Oct. 25, 1962---	11,000,000
Feather Water District	Oct. 26, 1962---	2,500,000
Broadview Water District	May 15, 1964---	1,144,400
Lewis Creek Water District	Oct. 6, 1965---	395,000

Terra Bella and Saucelito Irrigation Districts and Chowchilla, Proberta, Garfield, Feather, Broadview, and Lewis Creek Water Districts have completed construction of their distribution systems. Water service is supplied to Terra Bella, Saucelito, and Lewis Creek Districts from the Friant-Kern Canal, Chowchilla and Garfield from Madera Canal, Proberta from the Corning Canal, and Broadview from the Delta-Mendota Canal. Feather Water District is supplied from the

REPAYMENT OF RECLAMATION PROJECTS

Feather River by an exchange contract whereby like amounts of water are released down the Sacramento River.

Arvin-Edison Water District's distribution system is nearing completion and is served from Friant-Kern Canal.

Repayment arrangements.—The costs of the Central Valley project will be repaid by the beneficiaries of the three principal reimbursable project functions: irrigation, municipal and industrial water use, and commercial power. Water service contracts authorized by sections (9) (e) and 9(c) (2) of the 1939 Reclamation Project Act (53 Stat. 1187) have been executed with districts for service from the principal project features. Power service is being provided to preference customers and one private utility. It is contemplated that the net revenues from commercial power and municipal and industrial water in excess of that required for repayment of the allocation of these functions will be applied to assist in the repayment of project costs allocated to irrigation to the extent that revenues are not available from irrigation during the repayment period.

Cost allocation and repayment:

Project cost:	
Trinity River division	\$258,288,000
Shasta division	185,675,000
Sacramento River division	165,683,000
American River division	119,492,000
Delta division	105,801,000
Friant division	146,094,000
Project general	12,135,000
Other project costs	1,078,000
San Luis unit	662,739,000
Auburn-Folsom South unit	466,782,000
San Felipe division	92,380,000

Subtotal	2,216,147,000
Interest during construction	29,626,000
Addition of Corps of Engineers reservoirs authorized for inclusion (include IDC)	248,110,000
Corps work on Sacramento River	96,000
Total	2,493,979,000

Allocation:

Reimbursable:

Irrigation	1,326,539,000
Power	457,883,000
Municipal and industrial	196,429,000
Waterfowl conservation	9,652,000
State's share of San Luis unit	172,132,000
Non-federal recreation and fish and wildlife	9,537,000

Total reimbursable 2,172,172,000

Nonreimbursable:

Flood control	111,931,000
Navigation	12,503,000
Fish and wildlife	62,712,000
Recreation	52,242,000
Highway relocation	19,924,000
Water quality	2,680,000

Total nonreimbursable 261,992,000

Deferred use unallocated 59,815,000

Total **2,493,979,000**

Repayment:

Irrigation	1,205,951,000
Power	549,051,000
Municipal and industrial	235,501,000

Contributions:

State of California, San Luis unit	172,132,000
State of California, non-federal fish and wildlife	9,537,000

Total **2,172,172,000**

DISTRIBUTION SYSTEM REPAYMENT CONTRACTS

District	Date of contract	Contract number	Maximum contract limit	Repayment period (years)	Development period (years)	Initial construction payment
uburn-Folsom South unit: Foresthill Public Utility District	Feb. 27, 1968	14-06-200-368A	\$36,200	40	10	Unscheduled.
Contra Costa Canal: Contra Costa County Water District	Sept. 18, 1951 ¹	I75r-3401	1,288,000	40	5	Jan. 1, 1959.
Delta-Mendota Canal: Plain View Water District	May 22, 1953	14-06-200-785	838,000	40	10	June 15, 1965.
Delano-Kern Canal: Delano-Earlimart Irrigation District	Aug. 11, 1951	I75r-3327	14,509,000	40	2	Aug. 1, 1959.
Exeter Irrigation District	Nov. 8, 1950	I75r-2508	4,373,000	40	2	Aug. 1, 1959.
Ivanhoe Irrigation District	Sept. 23, 1949	I75r-1809	2,276,000	40	2	Aug. 1, 1958.
Lindmore Irrigation District	Feb. 28, 1949	I75r-1635	5,000,000	40	2	Aug. 1, 1958.
Lindsay-Strathmore Irrigation District	Sept. 12, 1950	I75r-2447	2,740,000	40	1	Mar. 1, 1955.
Shafter-Wasco Irrigation District	Feb. 11, 1955 ¹	14-06-200-4032	10,250,000	40	2	Aug. 1, 1961.
Southern San Joaquin Municipal Utility District	May 14, 1948	I75r-1434	9,959,484	40	3	Aug. 1, 1960.
Southern San Joaquin Municipal Utility District	Sept. 26, 1957	14-06-200-0660	1,200,000	40		Aug. 1, 1960.
Stone Corral Irrigation District	Dec. 13, 1950	I75r-2555	1,888,000	40	5	Aug. 1, 1967.
Tea Pot Dome Water District	Oct. 23, 1958	14-06-200-7430	1,800,000	40	2	Aug. 1, 1964.
Madera Canal: Madera Irrigation District	May 14, 1951	I75r-2891	8,320,000	40	2	July 1, 1958.
Madera Irrigation District	Feb. 25, 1959	14-06-200-7567	5,177,000	40	10	July 1, 1973.
Westlands unit: Westlands Water District	Apr. 1, 1965	14-06-200-2020A	157,048,000	40		As scheduled.
El Dorado unit: El Dorado Irrigation District	May 5, 1959	14-06-200-7734	7,000,000	40	7	Feb. 1, 1964.
Colusa-Colusa Canal: Colusa County Water District	Jan. 25, 1965	14-06-200-1811A	14,800,000	40	6	Unscheduled.
Clear Creek division: Bella Vista Water District	Apr. 3, 1964	14-06-200-851A	2,967,000	30	10	Apr. 14, 1967.
Clear Creek Community Services District	May 14, 1963	14-06-200-489A	1,185,000	29	10	Apr. 1, 1967.

¹ Date of original distribution system repayment contract; subsequent amendments have been executed. "Maximum contract limit" is that of most recent contract amendment, and is for total of both agricultural and municipal.

REPAYMENT OF RECLAMATION PROJECTS

MUNICIPAL AND MISCELLANEOUS WATER SERVICE CONTRACTS

District	Date of contract	Type of contract	Contract period (years)	Initial delivery date	Maximum water rate	Quantities of water	
						Minimum (acre-feet)	Maximum (acre-feet)
Auburn-Folsom South unit: Foresthill Public Utility District.	Feb. 27, 1968----	WS & D	40	Unscheduled ---	\$85.00	¹ Un-sched- uled	¹ Un-sched- uled
Contra Costa Canal: Contra Costa County Water District.	Sept. 18, 1951----	WS & D	40	Jan. 1, 1952-----	10.00	25,000	53,000
Delta-Mendota Canal: Banta-Carbona Irrigation District.	Feb. 14, 1969----	WS	25	Mar. 1, 1970-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Broadview Water District-----	Nov. 27, 1959----	WS	36	Mar. 1, 1960-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Sam Hamburg Farms-----	Dec. 6, 1960-----	WS	35	Mar. 1, 1961-----	10.00	30	64
Mercy Springs Water District--	June 21, 1967-----	WS	28	Mar. 1, 1968-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Patterson Water District-----	Dec. 18, 1967-----	WS & WR	28	Mar. 1, 1968-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Folsom Lake: County of El Dorado-----	July 25, 1958----	WS	40	Nov. 1, 1959----	9.00	As sched- uled	50
El Dorado County Water Agency.	Jan. 16, 1962----	WS	32	Unscheduled ---	9.00	As sched- uled	72,400
El Dorado Hills County Water District.	Oct. 5, 1964-----	WS	40	Jan. 1, 1965-----	9.00	400	37,600
City of Roseville-----	Sept. 9, 1967-----	WS	40	Unscheduled ---	9.00	3,000	40,000
City of Sacramento -----	June 28, 1957-----	WS & WR	Indefinite	—, —, 1963-----	9.00	8,000	90,000
San Juan Suburban Water District.	June 19, 1962----	WS	33	June 19, 1962----	9.00	Un-sched- uled	11,200
Friant-Kern Canal: Arvin-Edison Water Storage District.	Aug. 30, 1962----	WS	33	Mar. 1, 1963-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
International Water District--	Aug. 23, 1963----	WS	32	Jan. 1, 1964-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Lewis Creek Water District----	Feb. 19, 1965----	WS	30	—, —, 1966-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
City of Orange Cove-----	Feb. 28, 1956----	WS	40	Mar. 26, 1956----	10.00	Com- puted annu- ally	1,40
Shafter-Wasco Irrigation District.	Feb. 11, 1955----	WS & D	40	Jan. 1, 1966-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Mendota Pool: Fresno Slough Water District.	July 30, 1968----	WS & WR	35	Jan. 1, 1969-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
James Irrigation District-----	Dec. 23, 1963----	WS & WR	40	Jan. 1, 1964-----	10.00	¹ Un-sched- uled	¹ Un-sched- uled
Tranquility Irrigation District.	Dec. 23, 1963----	WS & WR	40	Jan. 1, 1964-----	10.00	Un-sched- uled	Un-sched- uled
Millerton Reservoir: City of Fresno-----	Jan. 12, 1961----	WS	40	Mar. 1, 1966-----	10.00	5,000	60,0

MUNICIPAL AND MISCELLANEOUS WATER SERVICE CONTRACTS—Continued

District	Date of contract	Type of contract	Contract period (years)	Initial delivery date	Maximum water rate	Quantities of water	
						Minimum (acre-feet)	Maximum (acre-feet)
Fresno County Waterworks District No. 18.	Aug. 17, 1956----	WS	40	Oct. 23, 1956----	20.00	As scheduled	150
County of Madera-----	Nov. 1, 1965-----	WS	29	Mar. 1, 1966-----	10.00	30	200
Sacramento River division:							
City of Redding-----	May 31, 1966-----	WS & WR	40	Apr. 1, 1964-----	9.00	675	2,150
G.W. Williams Co.-----	July 15, 1966-----	WS & WR	38	July 15, 1966-----	9.00	As scheduled	80
San Luis unit:							
Avenal Community Services District.	Nov. 20, 1969----	WS	39	As scheduled----	17.50	1,000	3,500
City of Coalinga-----	Oct. 28, 1968-----	WS	40	As scheduled----	18.50	2,500	10,000
Westlands Water District-----	June 5, 1963-----	WS & D	40	Nov. 1, 1967-----	17.50 18.50	400,000	1,008,000
Shasta Lake:							
Forest Service, Department of Agriculture.	Nov. 8, 1967-----	WS	Until terminated	Jan. 1, 1968-----	20.00	10	10
City of Redding-----	May 20, 1964-----	WS	28	June 1, 1964-----	20.00	As scheduled	As scheduled
Shasta County Water Agency--	June 30, 1967-----	WS & WR	37	July 1, 1968-----	9.00	As scheduled	5,000
Shasta Dam Area PUD-----	Aug. 12, 1948-----	WS	40	Oct. 15, 1948-----	20.00	375	(²)
Summit City PUD-----	July 19, 1966-----	WS	22	Aug. 1, 1966-----	20.00	As scheduled	(²)
Wonderland-Mountain Gate CSD.	Mar. 12, 1958-----	WS	40	Unscheduled ---	9.00	As scheduled	120
Yuba Park unit:							
El Dorado Irrigation District.	June 15, 1953-----	WS	40	June 1, 1955-----	17.50	As scheduled	20,000
Trinity River division:							
Bella Vista Water District----	Apr. 3, 1964-----	WS & D	30	Jan. 1, 1967-----	17.50	As scheduled	24,000
Clear Creek Community Services District.	May 14, 1963-----	WS & D	31	Apr. 1, 1967-----	18.50	As scheduled	15,300
Keswick Community Services District.	Sept. 16, 1964-----	WS	40	Jan. 1, 1970-----	9.00	50	500
Shasta Community Services District.	Mar. 25, 1964-----	WS	40	Jan. 1, 1969-----	9.00	As scheduled	1,000

Types of contract:

WS—water service.
 WS & D—water service and distribution system.
 WS & WR—water service and water rights.

¹ Contract makes provision that agricultural water can be used for municipal, industrial, and domestic purposes provided it is paid for at the M&I rate.

² At end of every 5-year period, a determination is made for the succeeding 5-year period, based on the preceding 5-year water use.

REPAYMENT OF RECLAMATION PROJECTS

IRRIGATION WATER SERVICE CONTRACTS

District	Date of contract	Initial delivery date	Type of contract	Contract period (years)	Maximum water rates		Minimum water deliveries (acre-feet)		Maximum water deliveries (acre-feet)	
					Class 1	Class 2	Class 1	Class 2	Class 1	Class 2
Auburn-Folsom South unit: Foresthill Public Utility District.	Feb. 27, 1968--	Unscheduled--	WS & D	40	2.50		500		4,400	
Buchanan unit: Chowchilla Water District and La Branza Water District.	May 28, 1968--	Unscheduled--	WS	23	2.75				24,000	
Contra Costa Canal: Contra Costa County Water District.	Sept. 18, 1951 ²	Jan. 1, 1952--	WS & D	40	3.50		10,000		33,000	
Delta-Mendota Canal: Banta-Carbena Irrigation District.	Feb. 14, 1969--	Mar. 1, 1970--	WS	25	3.50		25,000		25,000	
Broadview Water District--	Nov. 27, 1959 ²	Mar. 1, 1960--	WS	36	3.50		16,000		27,000	
Davis Water District--	Oct. 23, 1953	Mar. 1, 1954--	WS	40	3.50		1,000		6,500	
Del Puerto Water District--	June 10, 1953--	Mar. 1, 1954--	WS	40	3.50		2,500		10,000	
Eagle Field Water District--	Apr. 10, 1959--	Mar. 1, 1960--	WS	36	3.50		2,500		4,550	
Foothill Water District--	May 31, 1955--	Mar. 1, 1956--	WS	40	3.50		1,500		3,650	
Hospital Water District--	June 10, 1953--	Mar. 1, 1954--	WS	40	3.50		5,000		19,200	
Kern Canon Water District--	June 10, 1953--	Mar. 1, 1954--	WS	40	3.50		2,000		7,700	
Mercy Springs Water District--	June 21, 1967--	Mar. 1, 1968--	WS	28	3.50		6,000		13,300	
Mustang Water District--	Dec. 7, 1959--	Mar. 1, 1960--	WS	36	3.50		6,500		11,200	
Orestimba Water District--	Nov. 27, 1959--	Mar. 1, 1960--	WS	36	3.50		5,500		12,000	
Oro Loma Water District--	Apr. 7, 1959--	Mar. 1, 1960--	WS	36	3.50		3,000		4,600	
Panoche Water District--	Aug. 16, 1955--	Jan. 1, 1956--	WS	40	3.50		40,000		94,000	
Patterson Water District--	Dec. 18, 1967--	Mar. 1, 1968--	WS & WR	28	3.50		6,500		16,500	
Plain View Water District--	May 22, 1953	Mar. 1, 1954--	WS & D	40	3.50		2,500		17,250	
Quinto Water District--	Jan. 24, 1961--	Mar. 1, 1961--	WS	34	3.50		3,500		7,545	
Romero Water District--	May 11, 1959--	Mar. 1, 1960--	WS	36	3.50		2,500		5,360	
Salado Water District--	June 10, 1953	Mar. 1, 1954--	WS	40	3.50		1,500		6,000	
San Luis Water District--	Feb. 25, 1959--	Mar. 1, 1959--	WS	36	3.50		30,000		93,300	
Sunflower Water District--	Nov. 12, 1953--	Mar. 1, 1954--	WS	40	3.50		2,000		7,420	
West Stanislaus Irrigation District.	July 14, 1953--	Mar. 1, 1954--	WS	40	3.50		6,000		20,000	
Widren Water District--	Sept. 28, 1959--	Mar. 1, 1960--	WS	35	3.50		1,200		2,990	
Folsom Lake: San Juan Suburban Water District.	June 19, 1962--	June 19, 1962--	WS	33	2.25		Unscheduled		40,000	
Friant-Kern Canal: Arvin-Edison Water Storage District.	Aug. 30, 1962--	Mar. 1, 1963--	WS	33	3.50	1.50	40,000	200,000	40,000	313,000
Delano-Earlhart Irrigation District.	Aug. 11, 1951 ²	Mar. 1, 1952--	WS & D	40	3.50	1.50	108,800	74,500	108,800	74,500
Exeter Irrigation District--	Nov. 8, 1950 ²	Mar. 23, 1951--	WS & D	40	3.50	1.50	11,500	19,000	11,500	19,000
Fresno Irrigation District--	July 20, 1964--	Jan. 1, 1965--	WS & WR	31	3.50	1.50				75,000
Garfield Water District--	July 24, 1961--	Mar. 1, 1962--	WS	34	3.50		2,500		3,500	
International Water District--	Aug. 23, 1963--	Jan. 1, 1964--	WS	32	3.50		900		1,200	
Ivanhoe Irrigation District--	Sept. 23, 1949 ²	Mar. 20, 1950--	WS & D	40	3.50	1.50	7,700		7,700	
Lewis Creek Water District--	Feb. 19, 1965	May 19, 1966--	WS	30	3.50		900		1,450	
			WS & D	40	3.50	1.50	33,000	22,000	33,000	22,000

CENTRAL VALLEY PROJECT

District.	Aug. 5, 1948	July 2, 1949	WS		40	3.50	1.50	61,200	100,000	61,200	238,000
Lower Tule River Irrigation District.	May 1, 1951 ²	Mar. 1, 1952	WS		40	3.50	1.50	61,200	100,000	61,200	238,000
Orange Cove Irrigation District.	May 20, 1949 ²	July 9, 1949	WS		40	3.50	1.50	39,200	Unsched-uled 15,000	39,200	Unsched-uled 30,000
Porterville Irrigation District.	Jan. 28, 1952	Mar. 1, 1952	WS		40	3.50	1.50	16,000	22,800	16,000	32,800
Saucelito Irrigation District.	Feb. 13, 1951 ²	Mar. 24, 1951	WS		40	3.50	1.50	15,300	20,300	15,300	39,600
Shafter-Wasco Irrigation District.	Feb. 11, 1955 ²	Mar. 1, 1955	WS & D		40	3.50	1.50	67,000	50,000	67,000	50,000
Southern San Joaquin Municipal Utility District.	Oct. 18, 1945 ²	Mar. 31, 1951	WS		40	3.50	1.50	3,000	5,000	3,000	7,500
Stone Corral Irrigation District.	Aug. 26, 1959 ²	Mar. 27, 1951	WS & D		40	3.50	1.50	10,000	Unsched-uled 25,000	10,000	Unsched-uled 141,000
Tea Pot Dome Water District.	Oct. 23, 1958 ²	Mar. 1, 1959	WS & D		37	3.50	1.50	30,000	0	30,000	45,000
Terra Bella Irrigation District.	Sept. 12, 1950 ²	Apr. 13, 1951	WS		40	3.50	1.50	36,000	160,000	36,000	160,000
Tulare Irrigation District.	Oct. 18, 1950 ²	Mar. 19, 1951	WS		40	3.50	1.50	85,000	60,000	85,000	186,000
Hidden unit: Madera Irrigation District.	Aug. 5, 1968	Unscheduled	WS		Undeter-mined	2.75		As scheduled	As scheduled	As scheduled	As scheduled
Madera Canal: Chowchilla Water District.	July 5, 1950 ²	Mar. 22, 1951	WS		40	3.50	1.50	4,000	70	4,000	70
Madera Irrigation District.	May 14, 1951 ²	Mar. 1, 1952	WS & D		40	3.50	1.50	35,300	228	35,300	228
Mendota Pool: Fresno Slough Water District.	July 30, 1968	Jan. 1, 1969	WS & WR		35	3.50	1.50	13,800		13,800	
Melvin D. Hughes and Mardella Hughes.	Oct. 11, 1967	Jan. 1, 1968	WS & WR		36	3.50	1.50	As scheduled	As scheduled	As scheduled	As scheduled
James Irrigation District.	Dec. 23, 1963	Jan. 1, 1964	WS & WR		40	3.50	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Reclamation District No. 1606.	Apr. 12, 1968	Jan. 1, 1969	WS & WR		35	3.50	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Tranquillity Irrigation District.	Dec. 23, 1963	Jan. 1, 1964	WS & WR		40	3.50	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Sacramento River: James H. Akin and Aldean Akin.	Apr. 18, 1966	Apr. 18, 1966	WS & WR		38	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Henry Amen, et al.	Jan. 19, 1965	Nov. 12, 1964	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Lloyd A. Amos and Doris S. Amos.	Mar. 30, 1967	May 1, 1967	WS & WR		37	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Ray E. Anderson and Janice R. Anderson.	Jan. 2, 1965	Apr. 1, 1965	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Anderson-Cottonwood Irrigation District.	June 6, 1967	Apr. 1, 1964	WS & WR		40	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Ottorena Andreotti, et al.	Feb. 18, 1965	June 1, 1965	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Grace S. Arnold	Jan. 27, 1965	Unscheduled	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Frank Azevedo and Thelma Azevedo.	June 22, 1964	Apr. 1, 1965	WS & WR		40	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Ralph Beckley, et al.	June 7, 1965	Apr. 1, 1965	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Clyde M. Bell and Agnes M. Bell.	May 12, 1969	May 12, 1969	WS & WR		35	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Dewitt T. Boggs and Grace L. Boggs.	Aug. 7, 1964	July 1, 1964	WS & WR		40	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled
Leslie A. Butler and Minnie F. Butler.	Oct. 5, 1965	July 1, 1964	WS & WR		39	2.00	1.50	As scheduled	As scheduled	As scheduled	As scheduled

REPAYMENT OF RECLAMATION PROJECTS

IRRIGATION WATER SERVICE CONTRACTS—Continued

District	Date of contract	Initial delivery date	Type of contract	Contract period (years)	Maximum water rates		Minimum water deliveries (acre-feet)		Maximum water deliveries (acre-feet)	
					Class 1	Class 2	Class 1	Class 2	Class 1	Class 2
Robert B. Carter and Jane Foster Carter.	Nov. 13, 1969	Apr. 1, 1966	WS & WR	38	2.00		As scheduled		1,730	
May B. Chaplin, et al.	Sept. 4, 1964	As scheduled	WS & WR	40	2.00		As scheduled		2,930	
Carson Chesney	May 22, 1964	Apr. 1, 1964	WS & WR	40	2.00		As scheduled		390	
Chicago Almond Prod. Co., et al.	Apr. 3, 1968	As scheduled	WS & WR	36	2.00		As scheduled		570	
The Chuck Wagon, Inc.	Apr. 11, 1968	July 1, 1968	WS & WR	36	2.00		As scheduled		110	
Corp. of Pres. Sacto Stake, Church of Latter Day Saints.	June 7, 1965	July 1, 1965	WS & WR	39	2.00		As scheduled		170	
Pearl Clark, et al.	July 25, 1966	As scheduled	WS & WR	38	2.00		As scheduled		20	
John Clauss, Jr., et al.	Apr. 19, 1965	Aug. 1, 1966	WS & WR	39	2.00		As scheduled		460	
Thomas J. Collier, et al.	June 1, 1964	July 1, 1964	WS & WR	40	2.00		As scheduled		120	
Colusa Irrigation Co.	July 20, 1964	June 1, 1965	WS & WR	40	2.00		As scheduled		250	
Colusa Properties, Inc.	Apr. 14, 1965	Aug. 1, 1966	WS & WR	39	2.00		As scheduled		2,160	
Harry W. Daniell and Barbara M. Daniell.	Mar. 20, 1969	May 1, 1969	WS & WR	35	2.00		As scheduled		7	
Grover L. Davis and I. Meriel Davis.	Feb. 5, 1965	July 1, 1965	WS & WR	39	2.00		As scheduled		14	
Olive Percy Davis, et al.	June 7, 1965	Aug. 1, 1965	WS & WR	39	2.00		As scheduled		9,800	
Deseret Farms of California	June 7, 1965	As scheduled	WS & WR	39	2.00		As scheduled		1,500	
Gordon E. Dettelsen and Sandra K. Dettelsen.	Mar. 20, 1970	do	WS & WR	34	2.00		As scheduled		15	
Diamond International Corp.	Dec. 10, 1965	July 1, 1964	WS & WR	39	2.00		As scheduled		290	
John A. Driver and Clare M. Driver.	Oct. 19, 1965	Apr. 1, 1965	WS & WR	39	2.00		As scheduled		10	
Arthur E. Drown, et al.	Oct. 5, 1965	Apr. 1, 1964	WS & WR	39	2.00		As scheduled		380	
Sigurd Erickson	Apr. 1, 1965	Apr. 1, 1965	WS & WR	39	2.00		As scheduled		19	
Feather Water District.	June 26, 1962	May 1, 1965	WS	32	1.50		10,000		20,000	
Fong Sacramento Fruit Ranch.	Oct. 22, 1965	July 1, 1964	WS & WR	39	2.00		As scheduled		230	
Helen May Forry	Feb. 11, 1965	Aug. 1, 1967	WS & WR	39	2.00		As scheduled		605	
Ilias Frangos, et al.	Oct. 25, 1967	As scheduled	WS & WR	37	2.00		As scheduled		20	
Frank O. Freeman and Vola Freeman.	July 2, 1965	Apr. 1, 1965	WS & WR	39	2.00		As scheduled		19	
Antonio Furlan and Albina Furlan.	Nov. 25, 1964	June 1, 1964	WS & WR	40	2.00		As scheduled		570	
Emile Furlan, et al.	Aug. 18, 1964	July 1, 1964	WS & WR	40	2.00		As scheduled		350	
Harold B. German and Barbara J. German.	June 26, 1968	Apr. 1, 1968	WS & WR	36	2.00		As scheduled		4	
Angelo Givsti and Elva Givsti.	June 9, 1965	July 1, 1965	WS & WR	39	2.00		As scheduled		310	
Frank Givsti, et al.	Aug. 30, 1968	May 1, 1969	WS & WR	36	2.00		As scheduled		760	
Glenn-Colusa Irrigation District.	Apr. 6, 1964	July 1, 1964	WS & WR	40	2.00		As scheduled		75,000	
Alex Grant and Fannie E. Grant.	Aug. 21, 1964	July 1, 1969	WS & WR	40	2.00		As scheduled		40	
J. Glenn Griffin.	June 13, 1966	July 1, 1968	WS & WR	38	2.00		As scheduled		1,590	
Mabel E. Haman (deceased), et al.	Apr. 28, 1965	As scheduled	WS & WR	39	2.00		As scheduled		20	

G. A. Hanks and Sons	July 23, 1969	Apr. 1, 1969	WS & WR	35	2.00	As scheduled	240
Guy Harris and Ila Harris	Jan. 11, 1965	Apr. 1, 1964	WS & WR	39	2.00	As scheduled	12
Dora D. Haskell	Feb. 28, 1969	Apr. 1, 1964	WS & WR	40	2.00	As scheduled	250
John R. Henle and Elizabeth F. Henle	May 18, 1964	July 1, 1968	WS & WR	40	2.00	As scheduled	565
William H. Herrod and Shirley A. Herrod	Apr. 27, 1966	Apr. 1, 1966	WS & WR	38	2.00	As scheduled	55
Glenwood J. Hiatt, et al.	Apr. 21, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	380
Mildred Hradeck	Oct. 5, 1965	Apr. 1, 1964	WS & WR	39	2.00	As scheduled	5
Robert Hunter and Margaret McGrew Hunter	Aug. 3, 1966	Aug. 1, 1968	WS & WR	38	2.00	As scheduled	1,250
Elizabeth B. Huston and Lorraine H. Chalmers	June 18, 1964	Apr. 1, 1968	WS & WR	40	2.00	As scheduled	50
Investment Operating Corp.	Nov. 20, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	32,510
William S. Keeler	June 7, 1965	July 1, 1966	WS & WR	39	2.00	As scheduled	710
H. W. Keeler Trust	June 2, 1964	As scheduled	WS & WR	40	2.00	As scheduled	360
Lee J. Krejca	July 14, 1965	July 1, 1964	WS & WR	39	2.00	As scheduled	12
Clifton Lamb and Verna Lamb	Dec. 6, 1965	July 1, 1967	WS & WR	39	2.00	As scheduled	340
Frank Lamb and Fay Lamb	Dec. 23, 1965	July 1, 1965	WS & WR	39	2.00	As scheduled	600
William A. Larnier and Virginia Larnier	July 14, 1964	June 1, 1964	WS & WR	40	2.00	As scheduled	1,410
Burton H. Lauppe and Kathryn L. Lauppe	Sept. 14, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	230
Harold C. Lauppe and Velma M. Lauppe	Oct. 8, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	480
Martha S. Leiser, et al.	Sept. 21, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	610
Wayne N. Leiser	Oct. 28, 1968	July 1, 1964	WS & WR	36	2.00	As scheduled	24
Edward F. Lemos and Alice B. Lemos	Dec. 9, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	17
Joan Lewis and Wilmarth Lewis	Oct. 30, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	2,630
Paul Lovvich and Ruth H. Lovvich	Mar. 5, 1965	July 1, 1965	WS & WR	39	2.00	As scheduled	70
Wilson E. Lovvorn and Mildred E. Lovvorn	Dec. 16, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	2,940
M & T, Incorporated	May 25, 1964	As scheduled	WS & WR	40	2.00	As scheduled	4,670
Andrew Martin and Agnes B. Martin	Jan. 27, 1965	Apr. 1, 1965	WS & WR	39	2.00	As scheduled	130
Mayfair Farms, Inc.	Mar. 17, 1965	Apr. 1, 1965	WS & WR	39	2.00	As scheduled	30
Robert W. McLane and Naomi W. McLane	June 17, 1969	July 1, 1969	WS & WR	39	2.00	As scheduled	23
Helen McLaughlin	Dec. 21, 1965	As scheduled	WS & WR	39	2.00	As scheduled	220
Meridian Farms Water Co.	Mar. 30, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	12,000
Pauline Muroti and Alfred Muroti	Sept. 29, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	80
Natomas Central Mutual Water Co.	Apr. 29, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	47,800
Thomas L. Nelson and Hazel M. Nelson	Mar. 8, 1965	July 1, 1964	WS & WR	39	2.00	As scheduled	98
The Newhall Land and Farming Co.	May 27, 1964	July 1, 1965	WS & WR	40	2.00	As scheduled	8,590
Oji Brothers Farming, Inc.	Mar. 22, 1968	July 1, 1968	WS & WR	40	2.00	As scheduled	1,860
Masanobo Oji, et al.	Nov. 5, 1965	July 1, 1965	WS & WR	39	2.00	As scheduled	1,310
Pelger Mutual Water Co.	May 7, 1965	July 1, 1964	WS & WR	39	2.00	As scheduled	7,540
H. H. Penner and Anna Penner	June 4, 1964	July 1, 1964	WS & WR	40	2.00	As scheduled	21
Princeton-Codora-Glenn Irrigation District	Apr. 3, 1964	June 1, 1964	WS & WR	40	2.00	As scheduled	17,190

IRRIGATION WATER SERVICE CONTRACTS—Continued

District	Date of contract	Initial delivery date	Type of contract	Contract period (years)	Maximum water rates		Minimum water deliveries (acre-feet)		Maximum water deliveries (acre-feet)	
					Class 1	Class 2	Class 1	Class 2	Class 1	Class 2
Provident Irrigation District— Louis Potman and Barbara L. Potman.	Apr. 6, 1964— May 21, 1969—	As scheduled— July 1, 1969—	WS & WR WS & WR	40 35	2.00 2.00	—	As scheduled As scheduled	—	16,100 85	—
Beatty H. Ramsat Reclamation District No. 108— Reclamation District No. 1004.	May 27, 1964— Apr. 21, 1964— May 4, 1964—	Apr. 1, 1964— July 1, 1964— July 1, 1964—	WS & WR WS & WR WS & WR	40 40 40	2.00 2.00 2.00	—	As scheduled As scheduled As scheduled	—	30 54,500 23,600	—
C. L. Reel and Mary H. Reel C. E. Reische Charles F. Reische, et al. Henry D. Richter, et al. E. J. Ritchey and Addie E. Ritchey.	May 4, 1964— Dec. 14, 1964— July 31, 1964— Mar. 17, 1969— Oct. 22, 1964—	Apr. 1, 1965— July 1, 1964— Apr. 1, 1964— May 1, 1969— Apr. 1, 1965—	WS & WR WS & WR WS & WR WS & WR WS & WR	40 40 40 35 40	2.00 2.00 2.00 2.00 2.00	—	As scheduled As scheduled As scheduled As scheduled As scheduled	—	20 13 320 870 40	—
River Development Co.— River Garden Farms Co.— Beatrice Clatton Robbins— Roberts Ditch Irrigation Co., Inc.	June 20, 1969— May 8, 1964— Mar. 23, 1965— May 27, 1964—	May 1, 1969— June 1, 1964— July 1, 1965— Aug. 1, 1964—	WS & WR WS & WR WS & WR WS & WR	35 39 40	2.00 2.00 2.00	—	As scheduled As scheduled As scheduled As scheduled	—	345 6,400 180 1,200	—
Rose Orchard Corp.— Clayton Russell G. H. Russell Sactane Mutual Water Co.— Sciortino Brothers Helen M. Seaver, et al. Givlio Stanghellini, et al. Francis J. Steidlmeier, et al. Sutter Mutual Water Co.— Swinford Tract Irrigation Co.	Nov. 18, 1968— Dec. 4, 1964— Apr. 24, 1964— Oct. 22, 1965— Oct. 8, 1964— Apr. 3, 1967— Aug. 19, 1964— Apr. 8, 1965— Mar. 17, 1964— June 4, 1965—	May 1, 1969— July 1, 1965— July 1, 1964— July 1, 1965— July 1, 1964— May 1, 1967— July 1, 1964— Apr. 1, 1965— June 1, 1964— As scheduled—	WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR	36 40 39 40 37 40 39 40 39	2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00 2.00	—	As scheduled As scheduled As scheduled As scheduled As scheduled As scheduled As scheduled As scheduled As scheduled	—	90 34 30 1,640 140 270 200 700 100,000 40	—
Thomas E. Thomas, et al.— Tisdale Irrigation and Drainage Co. Title Insurance and Trust Co.	Nov. 7, 1967— Mar. 29, 1966— Aug. 23, 1968—	Nov. 7, 1967— June 1, 1965— As scheduled—	WS & WR WS & WR WS & WR	37 38 36	2.00 2.00 2.00	—	As scheduled As scheduled As scheduled	—	490 3,900 355	—
Fred L. Tomlinson, et al.— Glen L. Traganza and Duane P. Traganza. Walter C. Van Mill George Van Ruiten and Mart Van Ruiten. Wallace Construction, Inc. Eleanor P. Welch and Mervyle S. Thompson.	Mar. 8, 1965— Dec. 7, 1964— Dec. 9, 1964— Oct. 19, 1964— Oct. 24, 1969— May 20, 1965—	July 1, 1965— July 1, 1964— Apr. 1, 1964— July 1, 1964— As scheduled— Apr. 1, 1965—	WS & WR WS & WR WS & WR WS & WR WS & WR WS & WR	39 40 40 40 35 39	2.00 2.00 2.00 2.00 2.00 2.00	—	As scheduled As scheduled As scheduled As scheduled As scheduled As scheduled	—	1,700 28 14 380 1,320 100	—
Joyce M. Wells, et al.— Ralph D. Westfall, Jr., et al.— Roger C. Wilbur G. W. Williams Co.— Neil Wilson and Lena Wilson.	June 13, 1966— Dec. 4, 1967— July 14, 1964— July 15, 1966— May 14, 1964—	Aug. 1, 1968— Apr. 1, 1964— July 1, 1965— July 15, 1966— May 14, 1964—	WS & WR WS & WR WS & WR WS & WR WS & WR	38 40 40 38 40	2.00 2.00 2.00 2.00 2.00	—	As scheduled As scheduled As scheduled As scheduled As scheduled	—	1,310 45 1,080 50 80	—
Alan D. Winship, et al.— Max N. Yexxa, Jr., et al.	Aug. 20, 1965— May 19, 1966—	June 1, 1964— Apr. 1, 1964—	WS & WR WS & WR	39 38	2.00 2.00	—	As scheduled As scheduled	—	380 16	—

Russell L. Young, et al. ----	Jan. 10, 1966----	July 1, 1964----	WS & WR	38	2.00	As scheduled	8
San Luis unit:							
Westlands Water District----	June 5, 1963----	Nov. 1, 1967----	WS	40	8.00	400,000	1,008,000
Shasta Lake:							
Shasta County Water Agency:	June 30, 1967----	July 1, 1968----	WS & WR	37	2.00	As scheduled	5,000
Sly Park unit:							
El Dorado Irrigation District:	June 15, 1953----	June 15, 1953----	WS & D	40	2.50	4,375	17,500
Tehama-Colusa Canal:							
Colusa County Water District:	May 21, 1963----	Feb. 12, 1968----	WS & D	33	2.75	15,000	62,200
Dunnigan Water District----	Feb. 5, 1963----	Unscheduled----	WS	32	2.75	5,000	19,000
Kanawha Water District----	Apr. 25, 1963----	Apr. 19, 1963----	WS	32	2.75	2,000	7,000
Orland-Artois Water District----	Apr. 19, 1963----	Unscheduled----	WS	32	2.75	8,000	24,700
Westside Water District----	Mar. 16, 1960----	do -----	WS	35	2.75	5,000	22,100
Trinity River division:							
Bella Vista Water District----	Apr. 3, 1964----	Jan. 1, 1967----	WS & D	30	1.15	As scheduled	24,000
Clear Creek Community Services District.	May 14, 1963----	Apr. 1, 1967----	WS & D	31	1.65	8,000	15,300

Types of contract:

WS—Water service.

WS & D—Water service and distribution system.

WS & WR—Water service and water rights.

¹ First 5 years commencing with initial delivery date, \$1.00 (\$2.50 thereafter).² Date of execution of original water service contract (or water service and distribution system, if combined); amendments have followed; water quantities include latest amendment.³ Unobligated portion of city of Fresno.

REPAYMENT OF RECLAMATION PROJECTS

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—LINDMORE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1959	\$5,000,000	\$124,682		\$124,682	\$124,682		\$124,682	\$124,682
1960	5,000,000	124,683		124,683	124,683		124,683	249,365
1961	4,991,841	124,682		124,682	124,682		124,682	374,047
1962	4,991,841	125,137		125,137	125,137		125,137	499,184
1963	4,991,841	124,796		124,796	124,796		124,796	623,980
1964	4,991,841	124,796		124,796	124,796		124,796	748,776
1965	4,991,841	124,796		124,796	124,796		124,796	873,572
1966	4,991,841	124,796		124,796	124,796		124,796	998,368
1967	4,991,841	124,796		124,796	124,796		124,796	1,123,164
1968	4,991,841	124,796		124,796	124,796		124,796	1,247,960
1969	4,991,841	124,796		124,796	124,796		124,796	1,372,756
Total		1,372,756		1,372,756	1,372,756		1,372,756	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—EXETER IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1960	\$4,373,000	\$87,150		\$87,150	\$87,150		\$87,150	\$ 87,150
1961	3,484,466	87,150		87,150	87,150		87,150	174,300
1962	3,484,466	87,035		87,035	87,035		87,035	261,335
1963	3,484,958	87,112		87,112	87,112		87,112	348,447
1964	3,484,958	87,125		87,125	87,125		87,125	435,572
1965	3,484,958	87,125		87,125	87,125		87,125	522,697
1966	3,484,958	87,125		87,125	87,125		87,125	609,822
1967	3,484,958	87,125		87,125	87,125		87,125	696,947
1968	3,484,961	87,125		87,125	87,125		87,125	784,072
1969	3,485,126	87,125		87,125	87,125		87,125	871,197
Total		871,197		871,197	871,197		871,197	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—LINDSAY-STRATHMORE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955	\$2,248,038	\$28,138		\$28,138	\$28,138		\$28,138	\$28,138
1956	2,248,038	56,275		56,275	56,275		56,275	84,413
1957	2,248,038	56,090		56,090	56,090		56,090	140,503
1958	2,248,038	56,200		56,200	56,200		56,200	196,703
1959	2,248,038	56,201		56,201	56,201		56,201	252,904
1960	2,248,038	56,201		56,201	56,201		56,201	309,105
1961	2,248,038	56,201		56,201	56,201		56,201	365,306
1962	2,248,038	56,201		56,201	56,201		56,201	421,507
1963	2,248,038	56,201		56,201	56,201		56,201	477,708
1964	2,248,038	56,201		56,201	56,201		56,201	533,909
1965	2,248,038	56,201		56,201	56,201		56,201	590,110
1966	2,248,038	56,201		56,201	56,201		56,201	646,311
1967	2,248,038	56,201		56,201	56,201		56,201	702,512
1968	2,248,038	56,201		56,201	56,201		56,201	758,713
1969	2,248,038	56,201		56,201	56,201		56,201	814,914
Total		814,914		814,914	814,914		814,914	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—SOUTHERN SAN JOAQUIN MUNICIPAL UTILITY DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1961-----	\$11,159,484	\$230,875	-----	\$230,875	\$230,875	-----	\$230,875	\$230,875
1962-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	461,750
1963-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	692,625
1964-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	923,500
1965-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	1,154,375
1966-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	1,385,250
1967-----	9,235,000	230,875	-----	230,875	230,875	-----	230,875	1,616,125
1968-----	9,228,073	230,875	-----	230,875	230,875	-----	230,875	1,847,000
1969-----	9,227,718	230,759	-----	230,759	230,759	-----	230,759	2,077,759
Total--	-----	2,077,759	-----	2,077,759	2,077,759	-----	2,077,759	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—IVANHOE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1959-----	\$2,276,000	\$53,823	-----	\$53,823	\$53,823	-----	\$53,823	\$53,823
1960-----	2,276,000	53,726	-----	53,726	53,726	-----	53,726	107,549
1961-----	2,150,984	53,775	-----	53,775	53,775	-----	53,775	161,324
1962-----	2,150,984	53,774	-----	53,774	53,774	-----	53,774	215,098
1963-----	2,150,984	53,775	-----	53,775	53,775	-----	53,775	268,873
1964-----	2,150,984	53,774	-----	53,774	53,774	-----	53,774	322,647
1965-----	2,150,984	53,775	-----	53,775	53,775	-----	53,775	376,422
1966-----	2,150,984	53,774	-----	53,774	53,774	-----	53,774	430,196
1967-----	2,150,984	53,775	-----	53,775	53,775	-----	53,775	483,971
1968-----	2,150,984	53,774	-----	53,774	53,774	-----	53,774	537,745
1969-----	2,150,984	53,775	-----	53,775	53,775	-----	53,775	591,520
Total--	-----	591,520	-----	591,520	591,520	-----	591,520	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—DELANO-EARLIMART IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1960-----	\$14,509,000	\$264,750	-----	\$264,750	\$264,750	-----	\$264,750	\$264,750
1961-----	14,509,000	264,750	-----	264,750	264,750	-----	264,750	529,500
1962-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	794,250
1963-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	1,059,000
1964-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	1,323,750
1965-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	1,588,500
1966-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	1,853,250
1967-----	10,590,000	264,750	-----	264,750	264,750	-----	264,750	2,118,000
1968-----	10,559,937	264,750	-----	264,750	264,750	-----	264,750	2,382,750
1969-----	10,560,201	264,260	-----	264,260	264,260	-----	264,260	2,647,010
Total--	-----	2,647,010	-----	2,647,010	2,647,010	-----	2,647,010	-----

REPAYMENT OF RECLAMATION PROJECTS

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—MADERA IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1958	\$8,320,000	\$102,890		\$102,890	\$102,890		\$102,890	\$102,890
1959	13,497,000	205,780		205,780	205,780		205,780	308,670
1960	13,497,000	205,780		205,780	205,780		205,780	514,450
1961	13,497,000	205,780		205,780	205,780		205,780	720,230
1962	13,497,000	205,780		205,780	205,780		205,780	926,010
1963	13,497,000	205,780		205,780	205,780		205,780	1,131,790
1964	13,497,000	205,780		205,780	205,780		205,780	1,337,570
1965	13,497,000	205,780		205,780	205,780		205,780	1,543,350
1966	13,497,000	205,780		205,780	205,780		205,780	1,749,130
1967	13,497,000	205,780		205,780	205,780		205,780	1,954,910
1968	13,497,000	205,780		205,780	205,780		205,780	2,160,690
1969	13,497,000	208,790		208,790	208,790		208,790	2,369,480
Total		2,369,480		2,369,480	2,369,480		2,369,480	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—SHAFTER-WASCO IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1962	\$8,556,000	\$213,900		\$213,900	\$213,900		\$213,900	\$213,900
1963	8,556,000	213,900		213,900	213,900		213,900	427,800
1964	8,556,000	213,900		213,900	213,900		213,900	641,700
1965	8,549,650	213,900		213,900	213,900		213,900	855,600
1966	8,549,650	213,900		213,900	213,900		213,900	1,069,500
1967	8,549,650	213,900		213,900	213,900		213,900	1,283,400
1968	8,549,539	213,900		213,900	213,900		213,900	1,497,300
1969	8,549,734	213,900		213,900	213,900		213,900	1,711,200
Total		1,711,200		1,711,200	1,711,200		1,711,200	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—CONTRA COSTA COUNTY WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1959	\$1,288,000	\$10,869		\$10,869	\$10,869		\$10,869	\$10,869
1960	1,288,000	10,869		10,869	10,869		10,869	21,738
1961	1,288,000	10,772		10,772	10,772		10,772	32,510
1962	1,171,545	10,837		10,837	10,837		10,837	43,347
1963	1,171,545	29,289		29,289	29,289		29,289	72,636
1964	1,171,545	29,289		29,289	29,289		29,289	101,925
1965	1,171,545	29,288		29,288	29,288		29,288	131,213
1966	1,171,545	29,289		29,289	29,289		29,289	160,502
1967	1,171,545	29,288		29,288	29,288		29,288	189,790
1968	1,171,545	29,289		29,289	29,289		29,289	219,079
1969	1,171,545	29,289		29,289	29,289		29,289	248,368
Total		248,368		248,368	248,368		248,368	

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—EL DORADO IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1964-----	\$6,900,000	\$10,781	-----	\$10,781	\$10,781	-----	\$10,781	\$10,781
1965-----	6,900,000	21,563	-----	21,563	21,563	-----	21,563	32,344
1966-----	6,900,000	21,562	-----	21,562	21,562	-----	21,562	53,906
1967-----	6,900,000	21,563	-----	21,563	21,563	-----	21,563	75,469
1968-----	6,857,076	21,562	-----	21,562	21,562	-----	21,562	97,031
1969-----	6,857,076	21,563	-----	21,563	21,563	-----	21,563	118,594
Total -----	-----	118,594	-----	118,594	118,594	-----	118,594	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—BELLA VISTA WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1967-----	\$2,967,000	\$74	-----	\$74	\$74	-----	\$74	\$74
1968-----	2,967,000	1,052	-----	1,052	1,052	-----	1,052	1,126
1969-----	2,967,000	1,189	-----	1,189	1,189	-----	1,189	2,315
Total -----	-----	2,315	-----	2,315	2,315	-----	2,315	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—TEA POT DOME IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1965-----	\$1,800,000	\$41,850	-----	\$41,850	\$41,850	-----	\$41,850	\$41,850
1966-----	1,800,000	41,850	-----	41,850	41,850	-----	41,850	83,700
1967-----	1,800,000	41,850	-----	41,850	41,850	-----	41,850	125,550
1968-----	1,665,816	41,850	-----	41,850	41,850	-----	41,850	167,400
1969-----	1,665,816	41,850	-----	41,850	41,850	-----	41,850	209,250
Total -----	-----	209,250	-----	209,250	209,250	-----	209,250	-----

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—PLAIN VIEW WATER DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1965-----	\$544,760	\$6,810	-----	\$6,810	\$6,810	-----	\$6,810	\$6,810
1966-----	544,760	13,619	-----	13,619	13,619	-----	13,619	20,429
1967-----	544,760	13,619	-----	13,619	13,619	-----	13,619	34,048
1968-----	544,760	13,619	-----	13,619	13,619	-----	13,619	47,667
1969-----	544,760	13,619	-----	13,619	13,619	-----	13,619	61,286
Total -----	-----	61,286	-----	61,286	61,286	-----	61,286	-----

REPAYMENT OF RECLAMATION PROJECTS

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—STONE CORRAL IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1968-----	\$1,567,474	\$39,250	-----	\$39,250	\$39,250	-----	\$39,250	\$39,250
1969-----	1,567,474	39,250	-----	39,250	39,250	-----	39,250	78,500
Total -----	-----	78,500	-----	78,500	78,500	-----	78,500	-----

CENTRAL VALLEY PROJECT SCHEDULED INVESTMENT AND REPAYMENT OF THE REIMBURSABLE FUNCTIONS
[thousands]

COMMERCIAL POWER							MUNICIPAL AND INDUSTRIAL					
Fiscal year	Net revenues	Interest	Cumulative investment	Balance to be repaid	Repay-ment aid	Surplus revenues	Net revenues	Interest	Cumulative investment	Balance to be repaid	Repay-ment aid	Surplus revenues
1944			13,714	13,714								
1945	1,560	411	15,668	14,519								
1946	3,305	436	15,985	11,967								
1947	2,990	359	16,058	9,409								
1948	2,602	282	24,581	15,612					5,569	5,569		
1949	6,448	535	34,651	19,769			40	139	6,293	6,392		
1950	8,588	593	52,749	29,872			30	160	6,735	6,964		
1951	9,154	896	61,687	30,552			37	174	7,178	7,544		
1952	8,233	917	68,491	30,040			26	189	7,579	8,108		
1953	6,999	1,201	80,813	36,564			80	203	6,357	7,009		
1954	7,775	1,097	85,069	34,142			304	175	9,527	10,050		
1955	5,428	1,024	99,519	44,188			171	251	8,927	9,530		
1956	6,948	1,326	134,283	73,330			-134	238	16,819	17,794		
1957	8,112	2,200	134,552	67,687			166	445	18,844	20,098		
1958	10,138	2,030	135,218	60,245			118	503	18,881	20,520		
1959	8,758	1,808	136,143	54,220			211	513	18,937	20,878		
1960	6,477	1,626	136,696	49,922			966	522	18,956	20,453		
1961	7,310	1,498	147,396	54,810			321	511	20,677	22,364		
1962	7,676	1,645	141,747	43,130			371	559	23,315	25,190		
1963	18,181	1,048	246,565	130,815			273	630	37,283	39,515		
1964	13,409	4,052	301,765	176,658			568	1,115	41,373	44,152		
1965	14,074	5,299	291,631	157,749			706	1,140	44,350	47,563		
1966	16,870	4,733	286,159	140,140			537	1,189	45,292	49,157		
1967	16,139	4,204	279,703	121,749			417	1,229	45,461	50,138		
1968	14,064	3,652	238,341	69,975			795	1,253	52,555	57,690		
1969	12,393	2,100	236,985	58,326			691	1,442	52,628	58,514		
Adjustment	-345	-345	0	0			0	0	0	0		
Total thru 1969	223,286	44,627	236,985	58,326			6,694	12,580	52,628	58,514		
1970	12,054	1,749	216,654	27,690			468	1,463	44,534	51,415		
1971	11,140	831	216,654	17,381			544	1,285	44,534	52,156		
1972	10,891	521	216,654	7,011			590	1,304	57,002	65,338		
1973	9,789	211	216,654	0		2,568	1,044	1,738	57,002	66,032		
1974	9,300	0	216,654	0		9,300	1,298	1,756	64,491	73,979		
1975	11,584	0	216,654	0		11,583	1,522	2,012	68,354	78,332		
1976	11,132		268,704	17,467		0	1,920	2,154	72,996	83,208		
1977	11,304	563	247,573	0		14,405	2,147	2,313	123,974	134,352		
1978	10,889	0	286,097	13,230		0	2,712	3,977	132,210	143,853		
1979	10,356	427	286,097	3,300		0	3,078	4,287	132,210	145,062		
1980	14,138	106	451,607	154,779		0	3,749	4,323	176,116	189,542		
1981	15,011	4,992	451,607	144,759		0	4,157	5,762	176,116	191,147		
1982	15,673	4,668	451,607	133,755		0	4,371	5,811	176,116	192,587		
1983	15,450	4,313	451,607	122,618		0	4,710	5,855	176,116	193,732		
1984	16,080	3,954	451,607	110,492		0	4,910	5,889	176,116	194,711		
1985	19,126	3,564	451,607	94,930		0	5,562	5,919	176,116	195,068		
1986	19,338	3,061	451,607	78,653		0	5,947	5,930	176,116	195,051		
1987	19,046	2,536	451,607	62,143		0	6,365	5,930	176,116	194,616		
1988	18,937	2,004	451,607	45,210		0	6,975	5,916	176,116	193,557		
1989	18,456	1,458	451,607	28,212		0	7,364	5,884	176,116	192,077		
1990	18,727	910	451,607	10,395		0	8,077	5,839	176,116	189,839		

DISTRIBUTION SYSTEM—CONSTRUCTION REPAYMENT HISTORY—CLEAR CREEK COMMUNITY SERVICES DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1967	\$1,228,000	\$237		\$237	\$237		\$237	\$237
1968	1,228,000	1,142		1,142	1,142		1,142	1,379
1969	1,228,000	1,811		1,811	1,811		1,811	3,190
Total		3,190		3,190	3,190		3,190	

(EXCLUDING DISTRIBUTION SYSTEMS AND REIMBURSABLE RECREATION, FISH, AND WILDLIFE)
of dollars]

IRRIGATION				WATERFOWL CONSERVATION				Fiscal year
Net revenues	Cumulative investment	Repayment aid	Balance to be repaid	Net revenues	Cumulative investment	Repayment aid	Balance to be repaid	
								1944
								1945
								1946
								1947
								1948
								1949
								1950
								1951
								1952
								1953
								1954
								1955
								1956
								1957
								1958
								1959
								1960
								1961
								1962
								1963
								1964
								1965
								1966
								1967
								1968
								1969
0	0		0	0	0		0	
14,283	502,390		488,107	140	9,554		9,414	Total thru 1969
1,118	673,031		657,630	-50	8,429		8,339	1970
1,925	673,031		655,705	-52	8,429		8,391	1971
2,037	696,651		677,288	-66	8,429		8,457	1972
2,950	707,931		685,618	-47	8,429		8,504	1973
3,492	720,791		694,986	-47	8,429		8,551	1974
4,068	728,110		698,237	-51	8,429		8,602	1975
4,951	858,919		824,095	-51	8,429		8,653	1976
4,702	901,756		862,230	-51	8,429		8,704	1977
5,479	955,736		910,731	-51	8,429		8,755	1978
6,090	955,736		904,641	-51	8,429		8,806	1979
6,509	1,021,083		963,479	-51	8,429		8,857	1980
6,899	1,021,083		956,580	-51	8,429		8,908	1981
7,410	1,021,083		949,170	-51	8,429		8,959	1982
7,937	1,021,083		941,233	-51	8,429		9,010	1983
8,372	1,021,083		932,861	-51	8,429		9,061	1984
8,563	1,021,083		924,298	-51	8,429		9,112	1985
8,743	1,021,083		915,555	-51	8,429		9,163	1986
8,894	1,021,083		906,661	-51	8,429		9,214	1987
8,979	1,021,083		897,682	-50	8,429		9,264	1988
9,043	1,021,083		888,639	-50	8,429		9,314	1989
9,068	1,021,083		879,571	-50	8,429		9,364	1990

REPAYMENT OF RECLAMATION PROJECTS

CENTRAL VALLEY PROJECT SCHEDULED INVESTMENT AND REPAYMENT OF THE REIMBURSABLE FUNCTIONS
[thousands]

Fiscal year	COMMERCIAL POWER						MUNICIPAL AND INDUSTRIAL					
	Net revenues	Interest	Cumulative investment	Balance to be repaid	Repayment aid	Surplus revenues	Net revenues	Interest	Cumulative investment	Balance to be repaid	Repayment aid	Surplus revenues
1991.....	18,681	335	451,607	0	7,951	0	8,559	5,771	176,116	187,051		
1992.....	18,441	0	451,607	0	18,440	0	8,917	5,686	176,116	183,820		
1993.....	17,578	0	451,607	0	17,579	0	9,296	5,588	176,116	180,112		
1994.....	17,357	0	451,607	0	17,357	0	9,681	5,475	176,116	175,906		
1995.....	17,608	0	451,607	0	17,607	0	10,324	5,348	176,116	170,930		
1996.....	18,055	0	451,607	0	18,055	0	10,483	5,196	176,116	165,643		
1997.....	17,579	0	451,607	0	17,580	0	10,771	5,036	176,116	159,908		
1998.....	17,992	0	451,607	0	17,991	0	10,839	4,861	176,116	153,930		
1999.....	19,395	0	451,607	0	19,395	0	10,975	4,679	176,116	147,634		
2000.....	19,752	0	451,607	0	1,817	17,936	11,578	4,488	176,116	140,544		
2001.....	20,037	0	451,607	0	0	20,037	11,807	4,273	176,116	133,010		
2002.....	19,573	0	451,607	0	0	19,573	11,939	4,044	176,116	125,115		
2003.....	19,395	0	451,607	0	0	19,395	11,959	3,803	176,116	116,959		
2004.....	19,289	0	451,607	0	0	19,289	12,067	3,556	176,116	108,448		
2005.....	19,160	0	451,607	0	0	19,160	12,666	3,297	176,116	99,079		
2006.....	19,305	0	451,607	0	0	19,305	12,879	3,012	176,116	89,212		
2007.....	19,274	0	451,607	0	0	19,274	13,160	2,712	176,116	78,764		
2008.....	18,951	0	451,607	0	0	18,951	13,273	2,394	176,116	67,885		
2009.....	18,525	0	451,607	0	0	18,525	13,405	2,064	176,116	56,544		
2010.....	18,077	0	451,607	0	0	18,077	13,948	1,719	176,116	44,315		
2011.....	18,146	0	451,607	0	0	18,146	14,092	1,347	176,116	31,570		
2012.....	18,107	0	451,607	0	0	18,107	14,217	960	176,116	18,313		
2013.....	16,938	0	451,607	0	0	16,939	14,342	557	176,116	4,528		
2014.....	15,745	0	451,607	0	0	15,744	14,473	138	176,116	0	9,807	
2015.....	16,788	0	451,607	0	0	16,788	14,762	0	176,116	0	14,762	
2016.....	18,353	0	451,607	0	0	18,353	14,913	0	176,116	0	14,913	
2017.....	17,923	0	451,607	0	0	17,923	15,057	0	176,116	0	9,080	5,977
2018.....	17,707	0	451,607	0	0	17,707	15,207	0	176,116	0	0	15,207
2019.....	17,874	0	451,607	0	0	17,875	15,353	0	176,116	0	0	15,353
2020.....	18,804	0	451,607	0	0	18,803	15,503	0	176,116	0	0	15,503
2021.....	19,016	0	451,607	0	0	19,016	15,057	0	176,116	0	0	15,057
2022.....	18,925	0	451,607	0	0	18,925	15,075	0	176,116	0	0	15,075
2023.....	18,593	0	451,607	0	0	18,593	15,097	0	176,116	0	0	15,097
2024.....	17,704	0	451,607	0	0	17,704	15,115	0	176,116	0	0	15,115
2025.....	17,981	0	451,607	0	0	17,981	15,137	0	176,116	0	0	15,137
2026.....	18,922	0	451,607	0	0	18,922	15,159	0	176,116	0	0	15,159
2027.....	18,660	0	451,607	0	0	18,660	15,177	0	176,116	0	0	15,177
2028.....	18,317	0	451,607	0	0	18,317	15,200	0	176,116	0	0	15,200
2029.....	18,218	0	451,607	0	0	18,218	15,222	0	176,116	0	0	15,222
2030.....	18,214	0	451,607	0	0	18,214	15,240	0	176,116	0	11,417	3,823
Total.....	1,256,666	80,830	451,607	0	153,772	570,457	612,128	183,931	176,116	0	59,979	192,102

CORPS OF ENGINEERS PROJECTS

The Department of the Interior, acting through the Bureau of Reclamation, is authorized by section 8 of the Flood Control Act of 1944, by Presidential directives, and pursuant to the Reclamation laws, to contract on behalf of the United States for payment of the benefits of conservation storage for irrigation on certain projects authorized to be constructed by the U.S. Corps of Engineers. Accordingly, contracts have been negotiated or are in the process of being negotiated by the Bureau for repayment of the cost allocated to irrigation conservation benefits on nine projects constructed or to be constructed by the Corps of Engineers. Of these nine projects, four were authorized for integration into the Central Valley project (Hidden, Buchanan, New Melones, and Marysville), and it is

anticipated that the Black Butte and New Hogan projects will also be integrated into the project. These flood control projects have a total estimated cost of over \$366.3 million, of which \$145.8 million is allocated to irrigation for repayment.

BLACK BUTTE PROJECT

Black Butte project was authorized by the Flood Control Act of 1944. Black Butte Dam is located on Stony Creek about 9 miles west of Orland, Calif. In addition to reducing flood damage it will provide a conservation storage yield of 59,000 acre-feet for irrigation. The project is completed, and regulation of flood-flows and storage of conservation water began in November 1963. The total estimated cost of the project is \$14,042,000, of which \$5,602,758 is allocated to

(EXCLUDING DISTRIBUTION SYSTEMS AND REIMBURSABLE RECREATION, FISH, AND WILDLIFE)—Continued
of dollars]

IRRIGATION				WATERFOWL CONSERVATION				
Net revenues	Cumulative investment	Repayment aid	Balance to be repaid	Net revenues	Cumulative investment	Repayment aid	Balance to be repaid	Fiscal year
9,097	1,021,083	7,951	862,523	-50	8,429		9,414	1991
13,542	1,021,083	18,440	830,541	-50	8,429		9,464	1992
12,938	1,021,083	17,579	800,024	-50	8,429		9,514	1993
12,683	1,021,083	17,357	769,984	-50	8,429		9,564	1994
12,840	1,021,083	17,607	739,537	-50	8,429		9,614	1995
16,219	1,021,083	18,055	705,263	-50	8,429		9,664	1996
16,194	1,021,083	17,580	671,489	-50	8,429		9,714	1997
16,151	1,021,083	17,991	637,347	-50	8,429		9,764	1998
16,121	1,021,083	19,395	601,831	-51	8,429		9,815	1999
16,021	1,021,083	1,817	583,993	-51	8,429		9,866	2000
16,022	1,021,083	0	567,971	-51	8,429		9,917	2001
16,096	1,021,083	0	551,875	-51	8,429		9,968	2002
16,098	1,021,083	0	535,777	-51	8,429		10,019	2003
16,224	1,021,083	0	519,553	-51	8,429		10,070	2004
16,124	1,021,083	0	503,429	-51	8,429		10,121	2005
16,123	1,021,083	0	487,306	-51	8,429		10,172	2006
16,172	1,021,083	0	471,134	-51	8,429		10,223	2007
16,171	1,021,083	0	454,963	-51	8,429		10,274	2008
18,578	1,021,083	0	436,385	-51	8,429		10,325	2009
18,491	1,021,083	0	417,894	-52	8,429		10,377	2010
18,490	1,021,083	0	399,404	-52	8,429		10,429	2011
18,490	1,021,083	0	380,914	-52	8,429		10,481	2012
18,491	1,021,083	0	362,423	-52	8,429		10,533	2013
18,490	1,021,083	9,807	334,126	-52	8,429		10,585	2014
18,460	1,021,083	14,762	300,904	-52	8,429		10,637	2015
18,461	1,021,083	14,913	267,530	-52	8,429		10,689	2016
18,460	1,021,083	9,080	239,990	-52	8,429		10,741	2017
18,460	1,021,083	0	221,530	-52	8,429		10,793	2018
18,461	1,021,083	0	203,069	-52	8,429		10,845	2019
18,460	1,021,083	0	184,609	-52	8,429		10,897	2020
18,460	1,021,083	0	166,149	-52	8,429		10,949	2021
18,461	1,021,083	0	147,688	-52	8,429		11,001	2022
18,460	1,021,083	0	129,228	-52	8,429		11,053	2023
18,460	1,021,083	0	110,768	-52	8,429		11,105	2024
18,462	1,021,083	0	92,306	-52	8,429		11,157	2025
18,461	1,021,083	0	73,845	-52	8,429		11,209	2026
18,461	1,021,083	0	55,384	-52	8,429		11,261	2027
18,462	1,021,083	0	36,922	-52	8,429		11,313	2028
18,461	1,021,083	0	18,461	-52	8,429		11,365	2029
18,461	1,021,083	0	0	-52	8,429	11,417	0	2030
818,749	1,021,083	202,334	0	-2,988	8,429	11,417	0	

conservation. The project will continue to be operated by the Corps of Engineers. Contract 14-06-200-8209 was executed on March 2, 1960, with the State of California for payment of the conservation allocation and for the cost of operation and maintenance for 7 years. If the project is integrated into the Central Valley project, this contract will be terminated. Landowners in the area have expressed some interest in obtaining water from the project. Preliminary discussions have taken place, and if contracts are entered into with them, the obligation of the State under its contract will be reduced to the extent of repayment coverage of such contracts.

BUCHANAN PROJECT

The 1962 Flood Control Act authorizing construction of the Buchanan project was signed by the President on October 23, 1962. Buchanan Reservoir is

located on the Chowchilla River in Madera County, Calif. The available water will be coordinated with existing water supplies from the Central Valley project water delivered to the Madera Canal. The reservoir storage will produce an average annual new water yield to the area of about 24,000 acre-feet. The total estimated cost is \$16,520,000 and the project will be financially integrated with the Central Valley project. The Corps of Engineers will continue to operate the project.

A contract for water service from the Buchanan project was executed with the Chowchilla and La Branza Water Districts on May 28, 1968. The annual payment to the United States amounts to \$65,000, which represents the average yield of 24,000 acre-feet times the water rate of \$2.75 per acre-foot. Chowchilla Water District's share of the payments will be 84 per-

cent and La Branza Water District's share will be 16 percent.

HIDDEN PROJECT

The 1962 Flood Control Act also authorized construction of the Hidden project. Hidden Reservoir on the Fresno River will have a total capacity of 90,000 acre-feet and will be operated in conjunction with Central Valley project water available to the Madera Irrigation District from the Madera Canal. The new water yield to the area will average 23,800 acre-feet per year. The total estimated cost of the dam and channel improvements is \$18,610,000 and the project will be financially integrated with the Central Valley project. The Corps of Engineers will operate the project.

The Madera Irrigation District entered into a contract with the United States on August 5, 1968, for the entire yield created by the project of approximately 24,000 acre-feet annually. Following a 4-year buildup, the District will pay \$65,000 annually to the United States: \$2.75 per acre-foot times the average 24,000 acre-foot yield.

MARYSVILLE PROJECT

Marysville project was authorized by the Flood Control Act of 1966. The project will be located on the main stem of Yuba River about 11 miles northeast of the city of Marysville in Yuba County. The earthfill dam will be 215 feet high and will create a reservoir of about one million acre-feet for flood control, irrigation, power, and other purposes. A powerplant with installed capacity of approximately 50,000 kilowatts will also be constructed. The total estimated cost is \$147,000,000, of which \$50,400,000 is allocated to irrigation and \$34,700,000 to power.

NEW HOGAN PROJECT

New Hogan project was authorized by the Flood Control Act of 1944. The Dam and Reservoir was constructed on the Calaveras River about 30 miles northeast of Stockton, Calif. The original Hogan Dam and Reservoir was constructed by the City of Stockton, and the New Hogan Reservoir inundates the "Old" Hogan Dam. Gross reservoir capacity is 325,000 acre-feet, of which 145,000 acre-feet is used for water conservation. The New Hogan project provides an average annual irrigation yield of about 57,000 acre-feet of water. The Dam was substantially completed in December 1963, and the project will be operated for flood control and irrigation storage. The total estimated cost of the project is \$15,440,000, of which \$5,589,280

is allocated to irrigation. The Corps of Engineers will operate the project.

Contract 14-06-200-8213 was executed on March 2, 1960, with the State of California for payment of the irrigation allocation. If the project is integrated into the Central Valley project, this contract will be terminated. The Stockton and East San Joaquin Water Conservation District and the Calaveras County Water District have indicated they desire to execute water service contracts for the full irrigation yield of the project. If contracts are entered into, the obligation of the State under its contract will be reduced to the extent of repayment coverage of such contracts.

Since 1964, interim contracts have provided for a maximum diversion of 60,000 acre-feet, available each year to the Stockton and East San Joaquin Water Conservation District. Storage charges are established at \$4.00 per acre-foot for temporary contracts.

NEW MELONES PROJECT

Legislation authorizing construction of the New Melones project was signed by the President on October 23, 1962. New Melones Dam, Reservoir, and Powerplant will be located on the Stanislaus River about 25 miles upstream from the city of Oakdale, and about $\frac{3}{4}$ mile downstream from the existing Melones Dam. The facilities will lie within Tuolumne and Calaveras Counties, California. The reservoir will have a capacity of 2,400,000 acre-feet. Construction is expected to begin in fiscal year 1971 at a total estimated cost of \$154,000,000. Once the project is completed, it will be turned over to the Bureau of Reclamation for operation as a unit of the Central Valley project.

Contract negotiations are in progress and water rates are being established for negotiation purposes.

KINGS RIVER PROJECT

Pine Flat Dam and related works in the Kings River project were authorized by the Flood Control Act of 1944. The Kings River provides water to districts which embrace nearly a million acres of land in Fresno, Kings, and Tulare Counties, California. The dam was completed in 1954. Conservation space is available for irrigation storage, subject to flood control requirements. The construction cost allocated to irrigation is \$14,250,000. The Corps of Engineers will continue to operate the project.

Use of conservation space in Pine Flat Reservoir was made between 1954 and 1963 under interim contracts renewed annually with the Kings River Conservation

District representing all participating water users below the reservoir. Payment for the service has been at the rate of \$1.50 per acre-foot. For the years 1956 through 1963, interim contracts provided that all payments made in excess of the irrigation share of costs of operating the reservoir were to be credited to the water users when permanent repayment contracts were consummated.

Permanent contracts for the Kings River project were executed on December 23, 1963, with 28 contracting entities. The Kings River Water Association is the fiscal and operating agent for these entities. The Tulare Lake Canal Co. executed its contract, made a lump sum payment of its entire repayment obligation, and proceeded to deliver water to excess lands in the company. The United States has instituted an action in the U.S. District Court for the Southern District of California, Northern Division, in which the United States asserts that the laws of the United States prohibit delivery of water to excess lands not under recordable contract. This case will test the Solicitor's opinion of December 26, 1961, that accelerated payment in full of project capital costs does not relieve the contracting entity of compliance with the excess land provisions of the Federal Reclamation law.

Alta Irrigation District, Consolidated Irrigation District, Fresno Irrigation District, the Kings River Water District, Laguna Irrigation District, and Peoples Ditch Company have executed permanent 40-year installment repayment contracts containing the excess land provision.

The other 21 contractors executed a master agreement which will permit them to continue to receive irrigation water releases at \$1.50 per acre-foot, with no acreage limitation while litigation is in progress. However, each of these contractors is committed by the master agreement to execute either a permanent 40-year installment repayment contract or a lump-sum repayment contract upon termination of the litigation. All 28 contractors executed a permanent operation and maintenance contract under which they pay 37.4 percent of the annual operation and maintenance costs of the project.

KERN RIVER PROJECT

Kern River project was authorized by the Flood Control Act of 1944. Isabella Dam and Reservoir are located on the Kern River about 60 miles northeast of Bakersfield, Calif. The Kern River provides water to districts in Kern and Kings Counties, Calif. The reservoir has a maximum capacity of 570,000 acre-

feet, of which 535,000 are available for irrigation storage, subject to flood control requirements. The project was operationally completed in 1954 at a total construction cost of \$22,031,000, of which \$4,573,000 has been allocated to irrigation. The Corps of Engineers will continue to operate the project.

Use of conservation space in Isabella Reservoir was made between 1954 and 1963 under interim contracts renewed annually with Kern River water users. Payment for the conservation storage service was at the rate of \$1.50 per acre-foot of stored water released. The interim contracts provided that all payments made in excess of the irrigation share of costs of operating the reservoir were to be credited to the water users when permanent contracts were executed.

A permanent repayment contract was executed on October 23, 1964, by the North Kern, Buena Vista, and Tulare Lake Basin Water Storage Districts and the Hacienda Water District. The Districts paid the repayment obligation of \$4,573,000, less credits of \$1,407,273.74 accumulated under the interim contracts.

Acreage limitation will apply to the contracting Districts if required by the laws of the United States applicable to the project. This is expected to be determined by litigation. The Districts pay 21.7 percent of the total operation, maintenance, and replacement costs of the project.

Tulare Lake Basin Water Storage District and Hacienda Water District have an irrevocable 10-year option to purchase up to 20 percent of the storage use. The districts, Tulare, Hacienda, and Kern Counties, have agreed to the establishment and maintenance of a minimum recreation pool of 30,000 acre-feet of water in Isabella Reservoir.

SUCCESS PROJECT

Success project was authorized by the Flood Control Act of 1944. It is located on the Tule River about 5 miles east of Porterville, Tulare County, Calif. The reservoir has a capacity of 83,850 acre-feet, of which 75,000 are conservation space, subject to flood control requirements. The Corps of Engineers will continue to operate the project.

Use of conservation space in Success Reservoir was made between 1962 and 1965 under annual interim contracts with the Lower Tule River Irrigation District, Porterville Irrigation District, Vandalia Irrigation District, and Pioneer Water Company. Payment for the conservation storage service was at the rate of \$1.50 per acre-foot for stored water released. The interim contracts provided that all payments made in excess

of the irrigation share of costs of operation and maintenance were to be credited to the repayment obligation when the permanent contract was executed.

A permanent contract was executed April 30, 1965, with the same contractors under the interim contracts. The contractors will pay 9.5 percent of the total cost of the project, but not in excess of \$1,377,500.

Acreage limitations will apply, except any final judgment in litigation concerning the application of excess land laws on the Kings River project will inure to the benefit of the Kaweah Delta Water Conservation District or its subcontractors. The District pays 9.5 percent of the operation, maintenance, and replacement costs of the project.

TERMINUS PROJECT

Terminus project was authorized by the Flood Control Act of 1944. It is located on the Kaweah River in the Sierra foothills about 21 miles east of Visalia, Calif. The reservoir has a capacity of 150,000 acre-feet, of which 142,000 are available for irrigation storage, subject to flood control requirements. The Corps of Engineers will continue to operate the project.

Use of conservation space in Terminus Reservoir was made between 1962 and 1965 under annual interim contracts with the Kaweah Delta Water Conservation District, which represents all the water users below the reservoir. Payment for the conservation storage service was at the rate of \$1.50 per acre-foot for stored water released. The interim contracts provided that all payments made in excess of the irrigation share of costs of operation and maintenance were to be credited to the repayment obligation when the permanent contract was executed.

A permanent contract was executed January 11, 1965, with the Kaweah Delta Water Conservation District. The District will pay 14.1 percent of the total cost of the project, but not in excess of \$3,160,000.

Acreage limitations will apply, except any final judgment in litigation concerning the application of excess land laws on the Kings River project will inure to the benefit of the Kaweah Delta Water Conservation District or its subcontractors. The District pays 14.1 percent of the operation, maintenance, and replacement costs of the project.

STATEMENT OF COST AND REPAYMENT—CHIEF JOSEPH DAM PROJECT —————→

	Total project	Chelan division, Manson unit	Foster Creek division	Greater Wenatchee division	Okanogan-Similkameen division	
					Oroville-Tonasket unit	Whitestone Coulee unit
<i>Cost</i>						
Irrigation plant -----	\$34,747,245	\$13,935,000	\$2,636,163	\$8,117,082	\$3,610,000	\$6,449,000
Corollary construction costs -----	31,292		31,292			
Total cost -----	34,778,537	13,935,000	2,667,455	8,117,082	3,610,000	6,449,000
Operational and maintenance deficit -----	484,300			478,000		6,300
Bonneville Power Administration costs assigned -----	126,860		96,960		¹ 8,900	21,000
Total -----	35,389,697	13,935,000	2,764,415	8,595,082	3,618,900	6,476,300
<i>Repayment</i>						
Repayment realized:						
Repayment contracts matured -----	52,574		1,928	50,646		
Contributions -----	132		132			
Miscellaneous income -----	6,935			6,935		
Subtotal -----	59,641		2,060	57,581		
Anticipated future repayment:						
Repayment contracts -----	13,749,426	3,420,000	1,371,272	4,626,154	3,500,000	832,000
Power revenues—Bonneville Power Administration -----	21,224,026	10,515,000	1,373,583	3,893,143		5,442,300
Total repayment -----	35,033,093	13,935,000	2,746,915	8,576,873	3,500,000	6,274,300
Nonreimbursable—fish and wild-life and recreation -----	377,704		17,500	18,204	140,000	202,000
Total repayments and other credits -----	35,410,797	13,935,000	2,764,415	8,595,082	3,640,000	6,476,300
Surplus -----	21,100				21,100	

¹ Includes \$1,700 Corps of Engineer costs assigned.

CHIEF JOSEPH DAM PROJECT

WASHINGTON

Chief Joseph Dam project, a key structure in the comprehensive development of the Columbia River Basin, was constructed on the Columbia River by the Corps of Engineers, Department of the Army. The act of July 17, 1952 (66 Stat. 753), provides a basis for authorization of irrigation works in connection with Chief Joseph Dam and for financial assistance to such developments from power revenues.

As a part of this project, irrigation facilities have either been completed or are under construction for the Foster Creek division, Greater Wenatchee division, and the Okanogan-Similkameen division. In addition, the Manson unit of the Chelan division was authorized by Congress on September 7, 1966 (80 Stat. 705), as Public Law 89-557. Construction of the Manson unit will begin following final preparation of the definite plan report and appropriation of funds for construction. Investigations have also been made for a number of other divisions and units of divisions located adjacent to the Columbia River or along tributaries of the mainstream.

FOSTER CREEK DIVISION

The Foster Creek division, Bridgeport Bar, Brewster Flat, and Bluebottle Flat units were authorized by Congress on July 27, 1954 (68 Stat. 568), by Public Law 540, 83d Congress. Development of the townsite area, which is a part of the Bridgeport Bar unit, and the Bluebottle Flat unit, has been deferred for an indefinite period.

The Foster Creek division is located in Okanogan County adjacent to the Columbia River in northeastern Washington, midway between the Wenatchee and Okanogan fruit belts. Water is lifted from the Columbia River and supplied under pressure for sprinkler irrigation.

In 1969, the Bridgeport Bar unit had 475 irrigable acres for service and 448 acres irrigated, with a gross crop value of \$194,136 and an average crop value per irrigated acre of \$433.34. The Brewster Flat unit had

2,432 irrigable acres for service and 2,199 acres irrigated, with a gross crop value of \$993,989 and an average crop value per irrigated acre of \$452.02.

The principal project features consist of pumping plants on the Columbia River, outlet works from Chief Joseph Dam, a relift pumping plant, steel tank equalizing reservoirs, and a closed pipe distribution system.

Construction of these Bureau facilities was completed in 1958, and responsibility for operation and maintenance was assumed by the irrigation districts in April of that year.

The total estimated cost of the Foster Creek division is \$2,667,455. The reimbursable costs totaling \$2,649,955 are allocated to irrigation. Nonreimbursable fish and wildlife costs total \$17,500.

Repayment contracts.—On June 6, 1956, the Brewster Flat Irrigation District signed a contract to pay to the United States as its construction charge obligation, \$1,276,800. This obligation is to be repaid in 50 successive equal annual installments. Provision exists for increasing or decreasing the annual installments in accordance with a formula, mutually acceptable to the Secretary and the Board of Directors of the District, which reflects fluctuating economic conditions pertinent to the payment capacity of the water users. A development period of 10 years for the District lands is provided for in the contract.

Supplemental contract dated December 27, 1968, was entered into with the District to form two blocks for irrigation construction repayment purposes. Block 1, composed of lands planted to orchards in calendar year 1966, or prior thereto, will begin construction repayment in 1970. Block 2 has been given a 5-year deferment (1970-1974).

The repayment contract with the Bridgeport Bar Irrigation District, dated May 21, 1956, provides for repayment to the United States of its construction charge obligation of \$96,400. This obligation is to be repaid in 50 successive equal annual installments.

Provision exists for increasing or decreasing the amount of the annual installments in accordance with a formula, mutually acceptable to the Secretary and the board of directors of the District, which reflects fluctuating economic conditions pertinent to the payment capacity of the water users. Repayment of the District's obligation is distributed among the various land classes in accordance with a formula which takes into consideration the relative productivity of the lands. A development period of 10 years for the District lands is provided for in the contract.

CONTRACTS

1956, May 21: Contract 14-06-100-978 with Bridgeport Bar Irrigation District to repay an amount not to exceed \$96,400 in 50 successive equal annual installments. The first annual installment shall become due for calendar

year 1968 and shall be payable on or before March 15, 1969.

1956, June 6: Contract 14-06-100-992 with Brewster Flat Irrigation District to repay an amount not to exceed \$1,276,800 in 50 successive annual installments. The first annual installment shall become due for calendar year 1969 and shall be payable on or before March 15, 1970.

1968, December 27: Contract 14-06-100-6421 with Brewster Flat Irrigation District to establish two irrigation blocks. Block 1 initial installment due one-half June 15, 1970, and one-half December 15, 1970. Block 2 initial installment due one-half June 15, 1975 and one-half December 15, 1975.

Summary of status of Foster Creek division repayment contracts:

Total value of contracted repayment	\$1,373,200
Total matured charges	1,928
Total matured charges repaid	1,928
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—FOSTER CREEK DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1969-----	\$1,373,200	\$1,928		\$1,928	\$1,928		\$1,928	\$1,928
Total-----		1,928		1,928	1,928		1,928	

GREATER WENATCHEE DIVISION

The Greater Wenatchee division was authorized by Congress on May 5, 1958 (72 Stat. 104), by Public Law 85-393. As originally investigated, the Greater Wenatchee division contained seven units, but only four of these were included in the authorizing legislation. Of the authorized units, the East Wenatchee, Howard Flat, and Brays Landing units have been constructed and the Moses Coulee unit has been deferred.

The Greater Wenatchee division is located in Chelan and Douglas Counties adjacent to the Columbia River in northcentral Washington. All authorized units are located in the Chelan-Wenatchee fruit producing area. In 1969, there were 7,111 irrigable acres for services and 5,538 acres irrigated in the Greater Wenatchee division, with a gross crop value of \$2,278,573 and an average crop value per irrigated acre of \$411.44.

The principal features of the division consist of pumping plants on the Columbia River near each unit, relief pumping plants along some of the main lines, and a number of regulating reservoirs. A closed pipe distribution system provides sprinkler pressure for the

East Wenatchee and Brays Landing units and the Howard Flat unit is served by a low pressure system and irrigated by gravity application. Construction of these works was completed in 1965. The Greater Wenatchee Irrigation District has been formed to operate the division, although the three units are separated physically. Provision exists for transferring operation and maintenance of the irrigation works to the District at a time to be announced by the Secretary after consultation with District officials.

The total cost of constructing the irrigation facilities of the Greater Wenatchee division is \$8,117,082. In addition, \$478,000 of estimated operating costs during the 10-year development period will be funded for repayment.

Repayment contracts.—On October 1, 1959, the Greater Wenatchee Irrigation District signed a contract to pay to the United States as its construction charge obligation, \$4,470,000. This obligation is to be repaid in 50 successive annual installments, with the amount of each installment being the aggregate of the annual sums paid on account of the obligations allocated to the Howard Flat and Brays Landing units and blocks

1 and 2 of the East Wenatchee unit. Each allocation is to be based on the number of irrigable acres in each unit or block relative to the total irrigable acreage within the District. Provision exists for increasing or decreasing the annual construction charge installments in accordance with a formula mutually acceptable to the Secretary and the board of directors of the District, which reflects fluctuating economic conditions pertinent to the payment capacity of the water users. In addition, the contract provides for the assessment of irrigable lands on the basis of a uniform average rate or at variable rates and for reclassification of lands within each unit or block. Changes in total irrigable area may be made prior to the end of the development period for any unit which will not exceed 920 acres in the Howard Flat unit, 1,320 acres in the Brays Landing unit, and 4,460 acres in the East Wenatchee unit blocks by more than 2.25 percent. A development period of 3 years is provided for block 1 of the East Wenatchee unit, and 10 years is provided for block 2 of the East Wenatchee unit and the Howard Flat and Brays Landing units.

On July 30, 1962, the repayment contract with the District, dated October 1, 1959, was amended to in-

crease the construction obligation to \$4,676,800. The amendment also provides for increasing the irrigable area of the Brays Landing unit to 1,630 acres, subject to the adjustment outlined in the 1959 repayment contract.

CONTRACT AND NOTICE

1959, October 1: Contract 14-06-100-1786 with the Greater Wenatchee Irrigation District to repay an amount of \$4,470,000 in 50 successive annual installments. These installments shall be paid on or before March 15 of the year following that for which the installment is applicable.

1962, July 30: Amendment No. 1 to contract 14-06-100-1786, increasing the construction charge obligation to \$4,676,800.

1966, August 30: Notice to Greater Wenatchee Irrigation District announcing allocation of construction charge obligation among four irrigation blocks. First installment for block 1 was due March 15, 1968.

Summary of status of Greater Wenatchee division repayment contracts:

Total value of contracted repayment	\$4,676,800
Total matured charges	50,646
Total matured charges repaid	50,646
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—GREATER WENATCHEE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1968-----	\$4,676,800	\$25,323	-----	\$25,323	\$25,323	-----	\$25,323	\$25,323
1969-----	4,676,800	25,323	-----	25,323	25,323	-----	25,323	50,646
Total -----		50,646		50,646	50,646		50,646	

OKANOGAN-SIMILKAMEEN DIVISION

OROVILLE-TONASKET UNIT

The Oroville-Tonasket unit of the Okanogan-Similkameen division was authorized by Congress on October 9, 1962 (76 Stat. 761), by Public Law 87-762.

The Oroville-Tonasket unit is located in Okanogan County adjacent to the Okanogan River in northcentral Washington. Project facilities provide irrigation service on the basis of furnishing both new and supplemental water. Water is furnished primarily by diversion from the Similkameen River, supplemented by pumping from the Okanogan River.

In 1969, the Oroville-Tonasket unit had 9,035 irrigable acres for service and 7,646 acres irrigated. The gross crop value was \$12,475,128, with an average crop value per irrigated acre of \$1,631.59.

The principal project works included initially are a headworks structure on the Similkameen River with a half-mile connecting reach of main canal, three auxiliary pumping plants on the Okanogan River, rehabilitation of the main canal, and replacement of the Upper Okanogan Siphon. These facilities are referred to as part I. The deferred facilities, or part II, include a pumping plant with a control structure to provide irrigation storage in Palmer Lake, and five deep wells to replace the existing pumping plants along the east lakeshore. Construction of the features in part II has been deferred until storage is required.

Responsibility for operation and maintenance of all project works is being retained by the Oroville-Tonasket Irrigation District during the rehabilitation and betterment of the project.

The total estimated cost of both part I and part II is \$3,618,900, which includes \$8,900 of anticipated power facility costs to be transferred from Bonneville Power Administration.

Repayment contracts.—On December 26, 1964, the Oroville-Tonasket Irrigation District signed a contract to pay to the United States as its construction charge obligation, \$3,500,000. This covers the facilities for both part I and part II. The District's initial obligation will be for the cost of works completed under part I and will be allocated to the lands in block 1 and block 2. Block 1 consists of those lands previously irrigated from the District's irrigation system, now tentatively set at 7,922 acres. This block has no development period and will begin repaying its share of the obligation in 50 years upon completion of the facilities. Block 2 consists of new lands being provided service as a result of the reconstruction program. This area is estimated to contain 1,113 acres, and will begin repaying its share of the obligation in 50 years, following a 10-year development period. Costs of works built under part II upon completion will be added to the obligation under part I and repaid under the then-remaining years of the 50-year payout period. Provision exists for varying the annual installments to reflect fluctuating economic conditions in accordance with a formula that would be mutually acceptable to the Secretary and the board of directors of the District.

CONTRACT

1964, December 26: Contract 14-06-100-4442 with Oroville-Tonasket Irrigation District to repay an amount not to exceed \$3,500,000 in 50 annual installments. Payments for block 1 will begin upon completion of construction for part I and will be payable one-half on June 15 and one-half on December 15 of the year following the year for which the installment is applicable. Block 2 will have a 10-year development period before repayment begins.

Summary of status of Oroville-Tonasket unit repayment contract:

Total value of contracted repayment	\$3,500,000
Total matured charges	0

WHITESTONE COULEE UNIT

The Whitestone Coulee unit of the Okanogan-Similkameen division was authorized by Congress on September 18, 1964 (78 Stat. 955), by Public Law 88-599.

The Whitestone Coulee Unit is located in Okanogan County west of the Okanogan River in northcentral Washington. Project facilities will provide irrigation service to approximately 2,490 irrigable acres, of

which 1,865 acres are presently irrigated and 625 are dry.

Principal project works include a diversion structure on Toats Coulee Creek to accommodate a larger main canal, a pipeline and siphon from Toats Coulee Creek to Spectacle Lake, a dike to increase the storage capacity of Spectacle Lake, two pumping plants on Spectacle Lake and one relift plant on the main distribution canal. Major portions of the distribution system are designed and constructed for gravity flow. However, because of topographic restrictions, some areas will be served through facilities under project-supplied pressure. Since it is anticipated that most lands will ultimately be placed under sprinkler irrigation, it will be necessary for each farm operator to supply sprinkler pressure where it is not provided through project-constructed works.

Responsibility for operation and maintenance of project works is being retained by the Whitestone Reclamation District during construction of the project.

The total estimated cost of the project is \$6,476,300, which includes funded power costs of \$6,300 for Block 2, and \$21,000 of assigned Bonneville Power Administration substation costs.

Repayment contracts.—On April 3, 1967, the Whitestone Reclamation District signed a contract to pay to the United States as its construction charge obligation, \$832,000. This obligation is to be repaid in 50 annual installments. Based on a formula that would be mutually acceptable to the Secretary and the board of directors of the District, the annual installments could be varied to reflect fluctuating economic conditions. The project will consist of two irrigation blocks. Block 1, approximately 1,865 acres of presently irrigated land, will have no development period and begin repaying its construction charges upon completion of the project. Block 2, approximately 625 acres of new lands, will have a 10-year development period.

CONTRACT

1967, April 3: Contract 14-06-100-5845 with Whitestone Reclamation District to repay \$832,000 in 50 annual installments. Payments for block 1 will begin upon completion of construction and will be payable one-half on June 15 and one-half on December 15 of the year following the year for which the installment is applicable. Block 2 will have a 10-year development period before payments begin.

Summary of status of Whitestone Coulee unit repayment contract:

Total value of contracted repayment	\$832,000
Total matured charges	0

COLLBRAN PROJECT

COLORADO

The construction of the Collbran project in west-central Colorado was approved by the Secretary of Interior on May 9, 1950 and authorized by Congress July 3, 1952 (66 Stat. 325), as a multipurpose project for irrigation, hydroelectric power, and recreation.

The project was designed to furnish supplemental irrigation water supply to approximately 22,210 acres of irrigable land and to have an installed capacity for the generation of 13,500 kilowatts of hydroelectric power. Principal project features included the Vega Dam and Reservoir with a capacity of 33,500 acre-feet, South Side Canal, Bonham Cottonwood pipeline, and the Upper and Lower Molina Powerplants and inter-connecting transmission facilities.

Water from 17 small existing reservoirs located at high elevation is used for generation of power at the Upper and Lower Molina Powerplants. This water is delivered to the powerplants through the Bonham Cottonwood pipelines. Since the small reservoirs were originally developed for irrigation, the water is replaced to the irrigators from water stored in the Vega Reservoir.

The total estimated cost of the project is \$16,652,600. The authorizing legislation provides that net power revenues after payment of power costs with interest shall be applied to amortization of the costs allocated to irrigation which are beyond the ability of the irrigation water users to repay within a 50-year period.

Statement of project cost and repayment:

Bonham Dam and Reservoir	\$464,565
Grand Mesa Reservoir—rehabilitation	345,288
Bonham—Cottonwood pipeline	2,515,848
Upper Molina penstock	1,309,980
Vega Dam and Reservoir	4,080,586
South Side Canal	4,250,189
Upper Molina Powerplant	793,024
Lower Molina Powerplant	2,370,306
Upper & Lower Molina transmission lines and switchyards	423,918

Other features	57,622
Subtotal plant, property, and equipment ...	16,611,326
Corollary construction costs:	
Investigations	22,173
Property transfers funded	19,101
Subtotal corollary costs	41,274
Total costs allocation	16,652,600
Reimbursable costs:	
Irrigation	6,190,999
Power	9,691,956
Total	15,882,955
Repayment and other credits:	
Repayments realized:	
Repayment contracts matured	67,218
Contributions	276
Power revenues	46,607
Costs financed by Colorado River Dam Fund ..	103,682
Reserves for depreciation	115,402
Subtotal repayment realized	333,185
Anticipated future repayment:	
Repayment contracts unmatured	1,021,883
Power revenues	14,453,642
Reserves for depreciation	3,645,336
Subtotal anticipated future repayment	19,120,861
Total repayment	19,454,046
Other credits:	
Forest Service roads	41,609
Nonreimbursable—fish and wildlife	728,036
Subtotal other credits	769,645
Total repayment and other credits	20,223,691
Surplus	3,571,091

Repayment contracts.—A contract was negotiated with the Collbran Conservancy District on May 27, 1957, for the repayment of \$1,070,000, the portion of the irrigation allocation which is within the ability of the irrigation water users to repay. On November 18, 1960, a contract was executed between the United

States and the Colorado-Ute Electric Association, Inc., a generation and transmission cooperative composed of rural electrification associations, for the purchasing of all power produced at the Upper and Lower Molina plants. The project power system is being operated on a charge basis by the operating organization of the Colorado River Storage project.

On April 12, 1962, an amendatory contract between United States and the District was executed for revisions of the original plans, providing for inspection of project works, establishing semiannual payments of operation and maintenance costs and charges during the development period, transfer of maintenance equipment in the amount of \$19,101, and the payment thereof in 20 equal annual installments.

The 3-year development period began January 1, 1963, at which time the operation and maintenance of the irrigation works were transferred to the Collbran Conservancy District.

The present irrigable area for service is 22,210 acres, with 19,888 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$1,105,788 and \$55.60, respectively.

CONTRACTS AND NOTICES

1957, May 27: Contract 14-06-400-595 with Collbran Conservancy District for repayment of \$1,070,000 in 50 successive equal annual installments by December 31 of each year;

first payment to be made by December 31 of first calendar year following the development period.

1960, June 25: Notice. Three-year development period to commence January 1, 1963.

1960, November 18: Contract 14-06-400-1268 with Colorado-Ute Electric Association, Inc., for purchase of all power and energy produced from the Upper and Lower Molina Powerplants.

1962, January 11: Contract 14-06-400-2248 provides for the Ute Water Conservancy District to divert water from the tailrace of the Lower Molina Powerplant to be used by the District as a part of the project. The District agrees to pay in advance to the United States for the rights at \$1,800 per year, or any initial fractions thereof; the contract shall continue in force for forty years unless terminated prior thereto with a provision for extension by mutual agreement of both parties.

1962, April 12: Amendatory contract 14-06-400-595 provides for appropriate inspection of project works; development period operation and maintenance charges to be paid semiannually, one-half on or before January 1 and one-half on or before July 1 of each year; transfer and terms for operation and maintenance equipment in the amount of \$19,101 to the District.

1962, December 18: Notice of transfer of irrigation works to District for operation, effective January 1, 1963.

Summary of status of repayment contracts:

Total value of repayment contracts	\$1,089,101
Total matured charges	67,218
Total matured charges repaid	67,218
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1967-----	\$1,089,101	\$22,355	-----	\$22,355	\$22,355	-----	\$22,355	\$22,355
1968-----	1,089,101	22,507	-----	22,507	22,507	-----	22,507	44,862
1969-----	1,089,101	22,356	-----	22,356	22,356	-----	22,356	67,218
Total--	-----	67,218	-----	67,218	67,218	-----	67,218	-----

PAYOUT STUDY

COLLBRAN PROJECT

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Fiscal Year	INVESTMENT REPAYMENT FROM POWER REVENUES					IRRIGATION REVENUES			RECAPITULATION	
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric plant		Net revenues from water users	Interest free irrigation obligation		Net project revenues	Cumulative earned surplus
		Interest 3 percent	Principal	In service end of year	Balance to be repaid		Total obligation	Balance to be repaid		
1963	\$86,202		\$86,202	\$9,913,428	\$9,827,226		\$1,089,101	\$1,089,101	\$86,202	-
1964	128,348		-166,468	9,958,254	10,038,520		1,089,101	1,089,101	-166,468	-
1965	219,123	\$294,816	-79,423	9,958,254	10,150,123		1,089,101	1,089,101	-79,423	-
1966	336,239	298,546	58,125	9,990,434	10,106,004		1,089,101	1,089,101	58,125	58,125
1967	349,346	269,718	307,114	10,004,410	10,170,485		1,089,101	1,089,101	101,983	101,983
1968	323,825	232,160	91,665	9,472,442	9,402,713	\$22,355	1,089,101	1,066,746	114,173	114,173
1969	374,361	282,081	92,280	9,552,873	9,390,864	22,508	1,089,101	1,044,238	114,635	114,635
1970	354,820	281,726	73,094	9,578,719	9,343,616	22,355	1,089,101	1,021,883	95,449	95,449
1971	363,820	280,308	83,512	9,603,719	9,285,104	22,355	1,089,101	999,528	105,867	105,867
1972	362,820	278,553	81,267	9,628,719	9,225,837	22,355	1,089,101	977,173	106,622	106,622
1973	368,820	276,775	92,045	9,628,719	9,133,792	22,355	1,089,101	954,818	114,400	114,400
1974	368,820	274,014	94,806	9,628,719	9,038,986	22,355	1,089,101	932,463	117,161	117,161
1975	366,820	271,170	95,650	9,628,719	8,943,336	22,355	1,089,101	910,108	118,005	118,005
1976	368,820	268,300	100,520	9,628,719	8,842,816	22,355	1,089,101	887,753	122,875	122,875
1977	368,820	265,281	103,536	9,628,719	8,739,280	22,355	1,089,101	865,398	125,891	125,891
1978	361,320	262,178	99,142	9,628,719	8,640,138	22,355	1,089,101	843,043	128,197	128,197
1979	368,820	259,204	109,616	9,628,719	8,530,522	22,355	1,089,101	820,688	131,971	131,971
1980	368,820	255,916	112,904	9,628,719	8,417,618	22,355	1,089,101	798,333	135,259	135,259
1981	362,820	252,529	116,291	9,628,719	8,301,327	22,355	1,089,101	775,978	138,646	138,646
1982	362,820	249,010	113,780	9,628,719	8,187,547	22,355	1,089,101	753,623	141,149	141,149
1983	364,820	245,626	118,794	9,628,719	8,068,753	22,355	1,089,101	731,268	144,112	144,112
1984	368,820	242,063	126,757	9,628,719	7,941,996	22,355	1,089,101	708,913	147,149	147,149
1985	368,820	238,260	130,560	9,628,719	7,811,436	22,355	1,089,101	686,558	150,911	150,911
1986	368,820	234,343	134,477	9,628,719	7,676,959	22,355	1,089,101	664,203	154,832	154,832
1987	368,820	230,309	138,511	9,628,719	7,538,281	21,400	1,089,101	642,848	158,911	158,911
1988	366,320	226,153	140,167	9,628,719	7,398,281	21,400	1,089,101	620,493	163,272	163,272
1989	363,820	221,542	146,278	9,628,719	7,251,409	21,400	1,089,101	598,138	167,678	167,678
1990	368,820	217,542	151,280	9,628,719	7,105,131	21,400	1,089,101	575,783	172,066	172,066
1991	368,820	213,154	155,666	9,628,719	6,949,465	21,400	1,089,101	553,428	176,448	176,448
1992	368,820	208,481	160,336	9,628,719	6,789,129	21,400	1,089,101	531,073	180,831	180,831
1993	361,320	203,674	157,646	9,628,719	6,631,407	21,400	1,089,101	508,718	185,214	185,214
1994	368,820	198,944	164,876	9,628,719	6,461,607	21,400	1,089,101	486,363	189,597	189,597
1995	365,820	193,848	171,972	9,628,719	6,289,635	21,400	1,089,101	464,008	193,980	193,980
1996	368,820	188,689	180,131	9,628,719	6,109,501	21,400	1,089,101	441,653	198,363	198,363
1997	362,820	183,285	179,535	9,628,719	5,929,969	21,400	1,089,101	419,298	202,746	202,746
1998	362,820	177,899	176,921	9,628,719	5,749,937	21,400	1,089,101	396,943	207,129	207,129
1999	368,820	174,391	184,129	9,628,719	5,569,905	21,400	1,089,101	374,588	211,512	211,512
2000	327,220	170,359	156,861	9,628,719	5,389,873	21,400	1,089,101	352,233	215,895	215,895
2001	336,520	165,653	170,867	9,628,719	5,209,841	21,400	1,089,101	329,878	220,278	220,278
2002	338,820	160,527	178,293	9,628,719	5,029,809	21,400	1,089,101	307,523	224,661	224,661
2003	259,820	155,178	104,642	9,628,719	4,849,777	21,400	1,089,101	285,168	229,044	229,044
2004	295,820	152,039	143,781	9,628,719	4,669,745	21,400	1,089,101	262,813	233,427	233,427
2005	323,820	147,725	176,995	9,628,719	4,489,713	21,400	1,089,101	240,458	237,810	237,810
2006	338,820	142,442	196,378	9,628,719	4,309,681	21,400	1,089,101	218,103	242,193	242,193
2007	341,020	136,551	204,469	9,628,719	4,129,649	21,400	1,089,101	195,748	246,576	246,576
2008	326,820	130,417	196,403	9,628,719	3,949,617	21,400	1,089,101	173,393	250,959	250,959
2009	368,820	124,525	244,295	9,628,719	3,769,585	21,400	1,089,101	151,038	255,342	255,342
2010	368,820	117,196	251,624	9,628,719	3,589,553	21,400	1,089,101	128,683	259,725	259,725
2011	368,820	109,647	259,173	9,628,719	3,409,521	21,400	1,089,101	106,328	264,108	264,108
2012	368,820	101,872	266,948	9,628,719	3,229,489	21,400	1,089,101	83,973	268,491	268,491
2013	336,820	93,861	282,956	9,628,719	3,049,457	21,400	1,089,101	61,618	272,874	272,874
2014	333,820	87,175	246,645	9,628,719	2,869,425	21,400	1,089,101	39,263	277,257	277,257
2015	338,820	79,776	259,044	9,628,719	2,689,393	21,400	1,089,101	17,908	281,640	281,640
2016	338,820	72,004	271,816	9,628,719	2,509,361	21,400	1,089,101	-4,447	286,023	286,023
2017	345,920	63,850	282,070	9,628,719	2,329,329	21,400	1,089,101	-16,892	290,406	290,406
2018	363,820	55,388	308,432	9,628,719	2,149,297	21,400	1,089,101	-29,237	294,789	294,789
2019	368,820	46,135	322,685	9,628,719	1,969,265	21,400	1,089,101	-41,582	299,172	299,172
2020	368,820	36,454	332,366	9,628,719	1,789,233	21,400	1,089,101	-53,927	303,555	303,555
2021	368,820	26,483	342,337	9,628,719	1,609,201	21,400	1,089,101	-66,272	307,938	307,938
2022	368,820	16,213	352,607	9,628,719	1,429,169	21,400	1,089,101	-78,617	312,321	312,321
2023	359,920	5,635	187,832	9,628,719	1,249,137	21,400	1,089,101	-90,962	316,704	316,704
2024	368,820			9,628,719		21,400	1,089,101		321,087	321,087
2025	368,820			9,628,719		21,400	1,089,101		325,470	325,470
2026	368,820			9,628,719		21,400	1,089,101		329,853	329,853
2027	368,820			9,628,719		21,400	1,089,101		334,236	334,236
2028	365,820			9,628,719		21,400	1,089,101		338,619	338,619

COLORADO-BIG THOMPSON PROJECT

COLORADO

The Colorado-Big Thompson project in northcentral Colorado, located on both sides of the Continental Divide, was authorized by the President on December 21, 1937. The first appropriation of funds was made in the Interior Department Appropriation Act (50 Stat. 595), passed by Congress August 9, 1937, to initiate work on the project in accordance with the plan outlined in Senate Document No. 80, 75th Congress, 1st session.

The primary purpose of the Colorado-Big Thompson project is to supplement the water supply for an area currently estimated at 720,000 acres of irrigated land by diverting surplus water from the Colorado River on the western slope of the Continental Divide to the eastern slope through the 13.1-mile-long Alva B. Adams tunnel.

The power potential of the diverted water is utilized as it drops approximately 2,800 feet down the eastern slope of the Rocky Mountains between the Adams tunnel and the Foothills Storage system. Power is also produced from the waters stored for replacement purposes in Green Mountain Reservoir on the western slope.

Construction of the project works has been completed. Hydroelectric power was initially generated at the Green Mountain Powerplant in May 1943. Installed capacity of all Colorado-Big Thompson Powerplants totals 183,950 kilowatts. The Colorado-Big Thompson project power system is interconnected with the Missouri River Basin and Colorado River Storage project transmission systems in Colorado and Wyoming. These interconnections maintain strong ties with neighboring private utilities to assure customers living in the Colorado-Big Thompson project area of an adequate, reliable supply of electric power.

Initial delivery of irrigation water was made to the Northern Colorado Water Conservancy District in 1947. Deliveries of irrigation water were made from 1947 to 1950 under a 1947 contract (11r-1495), and from 1951

to 1956 under a 1950 contract (181r-1414). The United States operated and maintained all project works as completed until January 1, 1957.

Long-range operations began January 1, 1957, under the original 1938 contract, as amended. The United States is operating and maintaining, at no cost to the District, all specific power facilities and features. The use is shared in the production of power and the collection, conservation, and transportation of irrigation water, including the terminal storage reservoirs on the eastern slope. These costs are shared equally by the United States and the Northern Colorado Water Conservancy District. The supply canals leading from the terminal storage reservoirs are operated and maintained by the District at no cost to the United States. Irrigation water is delivered to the Northern Colorado Water Conservancy District primarily at the outlet works of Carter Lake and Horsetooth Reservoirs (terminal storage reservoirs) and at the Big Thompson spillway in the Charles Hansen feeder canal. Transportation and delivery of water from these points to the District's allottees is the responsibility of the District, in collaboration with the Colorado State engineer and the irrigation districts and canal companies.

A total of 720,000 acres was irrigated in 1969, producing crops with a total gross value of \$96,422,132 for an average of \$133.92 per acre. The irrigable area for service is 720,000 acres.

Costs of the principal features of the project as of June 30, 1969, are as follows:

RESERVOIRS AND DAMS

Green Mountain Dam and Elliott Creek Feeder Canal	\$7,081,218
Lake Granby Dam and four dikes	13,610,959
Willow Creek Reservoir and Dam	2,500,353
Shadow Mountain Lake, Dam, and dike	1,299,147
Marys Lake and two dikes	386,010
Lake Estes and Olympos Dam	2,464,797

REPAYMENT OF RECLAMATION PROJECTS

Rattlesnake Reservoir and Dam	1,164,008
Flatiron Reservoir and Dam	1,211,831
Carter Lake and three dams	3,736,141
Horsetooth Reservoir, four dams and dike	12,539,747

CANALS, CONDUITS, AND TUNNELS

Willow Creek feeder canal	1,159,190
Granby pump canal	1,292,709
Alva B. Adams tunnel and East Portal Dam	12,795,772
Aspen Creek siphon	1,459,000
Rams Horn tunnel	879,143
Prospect Mountain conduit (pressure)	739,783
Prospect Mountain tunnel (pressure)	1,265,059
Olympus siphon	653,877
Olympus and Pole Hill tunnels	6,325,061
Pole Hill canal	377,840
Rattlesnake tunnel	1,751,649
Bald Mountain tunnel (pressure)	1,901,950
Flatiron canal	387,816
Carter Lake conduit and tunnel (pressure)	1,620,500
St. Vrain supply canal	3,628,127
Boulder Creek supply canal	2,119,688
South Platte supply canal	2,289,052
Horsetooth supply conduit (tunnel No. 1) and Big Thompson diversion structure	987,682
Dixon Feeder Canal	64,280
Charles Hansen (Horsetooth) feeder canal	7,516,385
Charles Hansen (Poudre supply) canal	2,209,031
North Poudre supply canal	2,924,566
North Poudre diversion dam	366,331

PUMPING PLANTS

Granby pumping plant (600 cfs—186 feet)	8,528,431
Willow Creek pumping plant (400 cfs—175 feet) ..	1,616,123
Flatiron pumping plant (370 cfs—240 feet)	1,641,819

POWERPLANTS AND TRANSMISSION SYSTEM

Green Mountain Powerplant (21,600 kilowatts) ..	2,005,419
Marys Lake Powerplant (8,100 kilowatts)	1,967,646
Estes Powerplant (45,000 kilowatts) and penstocks	7,429,148
Pole Hill Powerplant (33,250 kilowatts)	3,885,729
Flatiron Powerplant (71,500 kilowatts) and penstocks	10,143,346
Big Thompson Powerplant (4,500 kilowatts)	1,272,593
Buildings and equipment	2,438,826
687 circuit miles of transmission lines	8,284,173
35 substations	10,119,765
Interest during construction	2,262,919
Fish and wildlife plant	15,267
Other plant	420,479
Total	162,740,385

Allocation of costs:

Reimbursable:	
Irrigation	101,563,810
Power	58,898,389
Interest during construction	2,262,919
Total	162,725,118

Nonreimbursable:	
Fish and wildlife	15,267
Total	162,740,385

Repayment of reimbursable costs:

From power revenues:	
Cost allocated to power	58,394,722
Interest during construction	2,262,919
Cost allocated to irrigation	72,402,902
Subtotal	133,060,543
From other power credits:	
Contributions allocated to power	494,613
Miscellaneous income	9,054
Subtotal	503,667
From irrigation revenues:	
Repayment contracts	28,915,569
Water rentals	83,507
District's share of replacement costs	81,107
Contributions allocated to irrigation	2,680
Miscellaneous income	78,045
Subtotal	29,160,908
Total probable repayment	162,725,118

Repayment and water service contracts.—The initial contract, dated July 5, 1938, between the United States and the Northern Colorado Water Conservancy District provides for the repayment of \$25 million of project construction costs over a period of 40 years. This contract has been amended to increase the District's fixed construction obligation by \$1,031,000. It has also been amended to provide \$2,966,371 additional revenues from water service, during the period preceding the beginning of the repayment installments, for application against increases in the construction costs. The total fixed construction obligation of the District plus net revenues from water rentals amounts to \$28,997,371. The District paid fixed annual water-rental charges through 1961 and is paying fixed annual installments on its construction charge obligation for the ensuing 40 years.

The United States also has contracted with the town of Estes Park, whereby the town has agreed to pay \$1,125 per annum in perpetuity for power losses associated with water diverted to the town from the project supply. During the conservancy district's 40-year repayment period, this power-loss payment will total \$45,000.

CONTRACTS

1938, July 5: Contract H-1051 with the Northern Colorado Water Conservancy District for construction of Colorado-Big Thompson project. The construction charge obligation of \$25 million is to be repaid in 40 consecutive annual

installments, the first 20 of which shall be \$450,000 each; the next 10, \$500,000 each; and the last 10, \$1,100,000 each.

- 1939, November 6: Contract I2r-11555 between the United States and the town of Estes Park, Colo., provides for the use of 500 acre-feet of domestic water per annum by the town. The construction obligation, in two parts, is composed of \$40,000 to be paid to the United States in 40 equal annual installments for credit on the construction obligation of the Northern Colorado Water Conservancy District, and \$1,705 payable in 40 installments for construction of the city's tap. The town will also pay to the United States annually and in perpetuity, for the right to divert 500 acre-feet annually to municipal use, \$125 as an operation and maintenance charge and \$1,125 for the loss in power production by the United States.
- 1947, January 14: Contract I1r-1495 with the Northern Colorado Water Conservancy District providing for temporary deliveries at East Portal Reservoir to a District pipeline, at a rate of \$1.50 per acre-foot of water. This contract produced earnings totaling \$83,506.50 prior to January 1, 1951, and was terminated by the contract of December 15, 1950.
- 1950, July 14: Contract I1r-1051 with the Northern Colorado Water Conservancy District amended the contract of July 5, 1938, by increasing the District's obligation to cover the increased cost of constructing the North Poudre supply canal system for gravity service in lieu of the pumping system originally planned. The District's construction obligation was increased by \$889,000 to a total of \$25,889,000, the increase to be paid in 40 installments of \$22,225 concurrently with the original obligation installments.
- 1950, December 15: Contract I81r-1414 with the Northern Colorado Water Conservancy District amended the 1938 contract to the extent of modifying the rates and conditions under which irrigation water would be made available pending commencement of the construction repayment period. Water charges on a per acre-foot basis to be fixed annually by the Secretary of the Interior. Net revenues amounted to \$1,363,367 from January 1, 1951, to December 31, 1956, when contract was terminated by contract of September 10, 1956.
- 1953, April 8: Contract I81r-1414, amendment No. 1, with the Northern Colorado Water Conservancy District modified the operating provisions of the contract of December 15, 1950.
- 1954, October 12: Contract I1r-1051, Supplement No. 1, with the Northern Colorado Water Conservancy District modified the contract of July 14, 1950, by increasing the construction obligation associated with the North Poudre supply canal as a gravity system in the amount of \$142,000. This increase is to be paid in 40 concurrent installments of \$3,550 each. It increased the total of the District's fixed construction obligation to \$26,031,000.
- 1955, August 18: Contract 14-06-700-901 among the United States, City of Boulder, and Northern Colorado Water Conservancy District. Provides for use of non-federal Boulder Reservoir by the United States, without charge, for the delivery of the Colorado-Big Thompson project water supply. Boulder Reservoir is located on Boulder Creek supply canal of the Colorado-Big Thompson project. The reservoir was constructed as a joint venture by the City of Boulder and the Conservancy District with the District paying to the city one-third but not to exceed \$450,000 of the construction cost. The reservoir has a capacity of 10,000 acre-feet and is used as a regulating reservoir.
- 1956, May 1: Contract 14-06-700-961 with Northern Colorado Water Conservancy District and the Platte Valley Irrigation Co. authorized the District and the Company to construct, at their cost, the Coal Ridge Waste Lake as a part of the South Platte supply canal. The lake has a capacity of 10,000 acre-feet and is used as a regulating reservoir.
- 1956, September 10: Contract I1r-1051, Supplement No. 2, with the Northern Colorado Water Conservancy District modifies the contracts of July 5, 1938, and December 15, 1950, as amended April 8, 1953, by establishing fixed, annual, water service payments in the years 1957 through 1961. The water service collections to be made under this contract total \$1,519,497.
- 1961, August 22: Contract 14-06-700-3123 with the City of Englewood and the Northern Colorado Water Conservancy District for carriage of City's Colorado western slope water through Colorado-Big Thompson project transmountain diversion facilities to Colorado eastern slope at such times as there exists unused capacity in the project facilities. The 40-year service contract requires payment annually of a mandatory charge computed at the rate of \$10.00 per acre-foot for 300 acre-feet during the first 3 years of the contract, and thereafter for the quantity of water transported the preceding year. The contract terminated automatically on August 22, 1969, following expiration of an 8-year option period, during which no carriage service was requested by the city.
- 1962, May 18: Contract 14-06-700-3199 with the Northern Colorado Water Conservancy District provides that the District advance funds for the Bureau construction of an additional outlet and pipeline from Carter Lake Reservoir Dam No. 1 outlet works to connect with the distribution works of the Little Thompson Valley Water District, which is a rural domestic water district having a water allotment contract with the Conservancy District.
- 1962, May 18: Contract 14-06-700-3206 with the Northern Colorado Water Conservancy District for the District to construct, at its cost, an additional outlet and pipeline from Soldier Canyon Dam outlet works to connect with the works of the Colorado State University Hydraulic Laboratory, the City of Fort Collins, and the Fort Collins-Loveland Water District.
- 1962, June 28: Contract 14-06-700-3220 with Crown-Zellerbach Corp. for furnishing not to exceed 6,000 acre-feet annually of water from Green Mountain Reservoir for use at a proposed paper mill near Kremmling, Colo. This 40-year water service contract called for payment at the rate of \$8.50 per acre-foot during the first 5 years, and for escalation of the rate each subsequent 5-year period until it reached \$10.45 per acre-foot during the last 5-year period. Simple average of rates was \$9.45 per acre-foot. Payment of an annual readiness-to-serve charge for 500 acre-feet was mandatory and non-refundable if water not

REPAYMENT OF RECLAMATION PROJECTS

taken. Payment to be made in advance for additional water requested. No water was furnished under this contract and, therefore, the contract terminated automatically on June 28, 1967, following expiration of a 5-year option period.

1964, October 29: Contract I1r-1051, Supplement No. 3, with the Northern Colorado Water Conservancy District amends the July 5, 1938, repayment contract to provide greater flexibility in the establishment and management of an escrow account in which excess tax revenues of the District are deposited and held for later application in meeting the District's greatly increased construction repayment installments during the last 10 years of the repayment period.

1965, December 6: Contract 14-06-700-5047 with the Oil Shale Corp., Sohio Petroleum Co., and Cleveland-Cliffs Iron Co. The 40-year water service contract provides for the furnishing of not to exceed 7,200 acre-feet of water annually from the Green Mountain Reservoir for use in processing of oil shale. An interim charge of \$1,000 annually is payable until initial request for delivery of water. Annual readiness-to-serve charge and charges per acre-foot are same as the June 28, 1962, contract with Crown-Zellerbach Corp. As of June 30, 1969, no water had been requested under the contract. The contract will terminate automatically on December 6, 1970, following expiration of a 5-year option period in the event no water has been requested.

1968, June 21: Contract I1r-1051, Supplement No. 4, with Northern Colorado Water Conservancy District provides for payment by the District to the United States for any project power revenue losses and increased pumping costs caused by changes in the pattern of delivery of the project water supply to the District compared with the 1962-66 base period.

Schedule of water rentals and construction repayment, Northern Colorado Water Conservancy District:

Water rentals:

1947-50, net revenues, contract I1r-1495 \$83,507

Construction obligation:

1951-56, net revenues, contract I81r-1414 1,363,367

1957-61, net revenues, contract I1r-1051,

Supplement 2 1,519,497

1962-81 @ \$475,775 per year, contract

I1r-1051, Supplement 1 9,515,500

1982-91 @ \$525,775 per year, contract

I1r-1051, Supplement 1 5,257,750

1992-2001 @ \$1,125,775 per year, contract

I1r-1051, Supplement 1 11,257,750

Subtotal, construction obligation 28,913,864

Total water rentals and construction

repayment 28,997,371

City of Estes Park 1,705

Total repayment 28,999,076

Summary of status of repayment contracts:

Total value of contracted repayment.....¹ \$28,915,569

Total matured charges 6,213,929

Total matured charges repaid 6,213,929

Total matured charges unpaid 0

¹ Represents construction obligation of Northern Colorado Water Conservancy District and City of Estes Park.

Advance collections under contract I81r-1414 were received from the Northern Colorado Water Conservancy District and applied to water used, as shown in the table below. Of the collections, 10 percent, or \$228,277, was set aside in a prepayment account, to be applied as offset against the District's share of cost of operation and maintenance of joint works during the second period of operation, which began January 1, 1957. Fifty percent of the cost of operation and maintenance of joint works is allocated to the District. These consist of all facilities except strictly irrigation facilities, which were operated by the District, and power facilities operated by the United States. Water rental accruals and collections prior to operation of the interim contract (I81r-1414) were \$83,507.

COLLECTIONS UNDER CONTRACT I81r-1414

Fiscal year	Net collections ¹	Total operation and maintenance costs	Allocation to irrigation	Allocated to electric operations	Excess of revenues over irrigation allocation	Net revenues, cumulative
1951-----	\$44,910	\$41,460	\$20,730	\$20,730	\$24,180	\$24,180
1952-----		178,588	89,294	89,294	(89,294)	(65,114)
1953-----	² 191,237	² 192,816	104,582	88,234	86,655	21,541
1954-----	750,339	243,238	121,619	121,619	628,720	650,261
1955-----	513,000	288,778	144,389	144,389	368,611	1,018,872
1956-----	318,757	275,673	137,837	137,836	180,920	1,199,792
1957-----	236,250	146,493	73,246	73,247	163,004	1,362,796
Credit, unidentifiable by years-----		(1,142)	(571)	(571)	571	1,363,367
Total-----	2,054,493	1,365,904	691,126	674,778	1,363,367	-----

¹ Gross collections reduced by 10 percent as credit to Northern Colorado Water Conservancy District for use as its share of operation and maintenance during early years of operation under basic contract.

² Includes \$8,174 operation and maintenance of Poudre supply canal, 100 percent allocated to District advance.

COLLECTIONS UNDER SUPPLEMENT NO. 2,
CONTRACT I1r-1051

Fiscal year	Fiscal year collections	Cumulative revenues
1958-----	\$59,497	\$59,497
1959-----	110,000	169,497
1960-----	450,000	619,497
1961-----	450,000	1,069,497
1962-----	450,000	1,519,497

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY

Fiscal year	POWER				IRRIGATION				RECAPITULATION	
	Investment repayment from power revenues- plant in service at end of year				Investment repayment				Net project revenues	Earned surplus (cumulative)
	Repayment components of net power revenues		Interest Bearing		Interest Free		Payments			
	Interest, 3 percent	Principal	Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid	Amount expected under contracts	Interest free balance to be repaid		
Prior to 1943.										
1943.	\$15,927		\$2,449,796	0		\$53,216,960		\$21,591,632		\$15,927
1944.	57,149	16,315	2,449,796	2,482,068		61,669,913		25,021,232		57,149
1945.	386,301	311,839	2,561,521	2,281,954		69,819,336		28,327,681		386,301
1946.	392,901	68,459	2,717,480	2,791,389		70,883,166		28,759,431		392,901
1947.	495,217	63,404	2,791,389	1,755,567		71,766,290		217,208		495,217
1948.	434,496	52,667	2,828,271	2,828,271		71,665,924		28,999,076		434,496
1949.	476,666	42,319	2,849,369	997,371		71,613,261		28,999,076		476,666
1950.	354,928	29,921	2,945,454	768,449		71,573,119		28,999,076		354,928
1951.	368,509	23,053	2,965,804	4,162,557		71,573,119		28,999,076		368,509
1952.	362,429	133,877	20,691,070	17,956,191		71,573,119		28,999,076		362,429
1953.	182,948	538,686	31,871,911	21,777,922		71,573,119		28,999,076		182,948
1954.	2,187,843	653,338	30,106,679	31,013,544		71,573,119		28,999,076		2,187,843
1955.	1,709,020	1,033,200	57,393,315	54,389,125		71,573,119		28,999,076		1,709,020
1956.	2,731,326	1,688,293	57,923,635	56,266,094		71,573,119		28,999,076		2,731,326
1957.	2,534,737	1,612,282	58,072,500	52,979,791		71,573,119		28,999,076		2,534,737
1958.	2,233,253	1,589,394	58,242,000	53,943,859		71,573,119		28,999,076		2,233,253
1959.	3,184,192	1,575,163	59,143,596	52,397,939		71,573,119		28,999,076		3,184,192
1960.	2,906,882	1,571,910	60,392,175	51,711,676		71,573,119		28,999,076		2,906,882
1961.	2,923,065	1,551,349	60,549,501	50,497,246		71,573,119		28,999,076		2,923,065
1962.	2,187,969	1,514,917	60,801,917	49,883,610		71,573,119		28,999,076		2,187,969
1963.	7,262,339	1,386,226	60,861,461	44,263,041		71,573,119		28,999,076		7,262,339
1964.	3,197,309	1,327,891	60,710,986	42,240,148		71,573,119		28,999,076		3,197,309
1965.	2,953,563	1,267,204	60,656,561	40,499,364		72,413,240		28,999,076		2,953,563
1966.	2,379,516	1,164,564	60,658,361	39,338,321		72,413,240		28,999,076		2,379,516
1967.	3,111,914	1,931,816	60,611,898	37,358,321		72,413,240		28,999,076		3,111,914
1968.	2,178,408	1,037,659	60,620,305	36,300,069		72,413,240		28,999,076		2,178,408
1969.	1,481,417	940,691	60,627,395	35,375,468		72,402,902		28,999,076		1,481,417
Subtotal	48,681,695	23,429,768	60,627,395	35,375,468		72,402,902		28,999,076		48,681,695
1970.	3,121,385	2,060,121	60,661,695	33,319,617		72,402,902		28,999,076		3,121,385
1971.	3,089,642	2,089,153	60,666,695	31,265,194		72,402,902		28,999,076		3,089,642
1972.	3,178,306	2,240,341	60,666,695	30,295,153		72,402,902		28,999,076		3,178,306
1973.	3,217,035	2,340,280	60,666,695	26,678,873		72,402,902		28,999,076		3,217,035
1974.	3,216,045	2,415,679	60,666,695	26,678,873		72,402,902		28,999,076		3,216,045
1975.	3,214,334	2,278,896	60,666,695	24,263,194		72,402,902		28,999,076		3,214,334
1976.	3,211,833	2,558,530	60,666,695	21,716,356		72,402,902		28,999,076		3,211,833
1977.	3,211,319	2,631,772	60,666,695	21,716,356		72,402,902		28,999,076		3,211,319
1978.	3,179,072	2,681,568	60,666,695	16,383,454		72,402,902		28,999,076		3,179,072
1979.	3,128,922	2,711,865	60,666,695	13,001,886		72,402,902		28,999,076		3,128,922
1980.	3,073,301	2,737,600	60,666,695	11,190,021		72,402,902		28,999,076		3,073,301
1981.	3,009,939	2,756,366	60,666,695	8,452,421		72,402,902		28,999,076		3,009,939

1982	2,984,297	170,882	2,813,415	60,666,695	2,882,640	72,402,902	72,402,902	475,818	28,999,076	16,516,012	3,460,115	
1983	2,864,041	86,479	2,777,562	60,666,695	105,078	72,402,902	72,402,902	525,818	28,999,076	15,990,191	3,389,859	
1984	2,692,924	3,152		60,666,695	0	72,402,902	69,818,208	525,817	28,999,076	15,164,377	3,218,741	
1985	2,903,224	0	0	60,666,695	0	72,402,902	67,324,984	525,818	28,999,076	14,938,559	3,019,042	
1986	2,256,788	0	0	60,666,695	0	72,402,902	65,068,196	525,817	28,999,076	14,412,742	2,782,605	
1987	2,160,192	0	0	60,666,695	0	72,402,902	62,899,004	525,818	28,999,076	13,886,924	2,695,010	
1988	2,220,327	0	0	60,666,695	0	72,402,902	60,678,677	525,817	28,999,076	13,361,107	2,746,114	
1989	2,398,165	0	0	60,666,695	0	72,402,902	58,280,512	525,818	28,999,076	12,835,289	2,923,983	
1990	2,534,059	0	0	60,666,695	0	72,402,902	55,746,453	525,817	28,999,076	12,309,472	3,059,374	
1991	2,633,556	0	0	60,666,695	0	72,402,902	53,112,897	525,818	28,999,076	11,783,654	3,249,679	
1992	2,723,861	0	0	60,666,695	0	72,402,902	50,389,036	1,125,781	28,999,076	11,257,836	3,872,562	
1993	2,746,778	0	0	60,666,695	0	72,402,902	47,612,258	1,125,784	28,999,076	10,132,052	3,955,029	
1994	2,829,245	0	0	60,666,695	0	72,402,902	44,813,013	1,125,784	28,999,076	9,006,268	4,017,273	
1995	2,901,489	0	0	60,666,695	0	72,402,902	41,921,524	1,125,784	28,999,076	7,880,484	4,061,835	
1996	2,936,051	0	0	60,666,695	0	72,402,902	38,985,473	1,125,784	28,999,076	6,754,700	4,103,703	
1997	2,976,919	0	0	60,666,695	0	72,402,902	36,007,554	1,125,784	28,999,076	5,628,916	4,132,686	
1998	3,006,902	0	0	60,666,695	0	72,402,902	33,000,652	1,125,783	28,999,076	4,503,132	4,149,583	
1999	3,023,800	0	0	60,666,695	0	72,402,902	29,976,852	1,125,783	28,999,076	3,377,349	4,127,100	
2000	3,001,317	0	0	60,666,695	0	72,402,902	26,975,535	1,125,783	28,999,076	2,251,566	4,092,091	
2001	2,996,308	0	0	60,666,695	0	72,402,902	24,009,221	1,125,783	28,999,076	1,125,783	4,024,429	
2002	2,998,046	0	0	60,666,695	0	72,402,902	21,110,581	0	28,999,076	0	2,855,596	
2003	2,855,346	0	0	60,666,695	0	72,402,902	18,254,985	0	28,999,076	0	2,898,646	
2004	2,808,544	0	0	60,666,695	0	72,402,902	15,356,339	0	28,999,076	0	3,001,591	
2005	2,601,594	0	0	60,666,695	0	72,402,902	12,354,748	0	28,999,076	0	3,093,305	
2006	3,093,305	0	0	60,666,695	0	72,402,902	9,261,443	0	28,999,076	0	3,177,533	
2007	3,177,533	0	0	60,666,695	0	72,402,902	6,083,910	0	28,999,076	0	3,193,922	
2008	3,193,922	0	0	60,666,695	0	72,402,902	2,889,988	0	28,999,076	0	3,136,633	\$246,045
2009	3,136,633	0	0	60,666,695	0	72,402,902	0	0	28,999,076	0	194,137,419	246,045
Total	165,138,343	31,822,701	60,666,695	60,666,695	0	72,402,902	0	28,999,076	28,999,076	0	194,137,419	246,045

COLORADO RIVER PROJECT

TEXAS

In May 1935 the President initiated the Colorado River, Texas, project by allocating \$5,000,000 from the Emergency Relief Appropriation Act of 1935 for financing the flood control portion of Hamilton Dam and for construction of a system of dams below Bluffton, Tex.

Construction of Marshall Ford Dam in Travis County near Austin, Tex., by the Bureau of Reclamation was authorized by the Rivers and Harbors Act of August 26, 1937 (50 Stat. 850). Primarily a flood-control project, the dam and reservoir serve also to improve navigation, regulate stream flow, and provide water for storage for irrigation uses and power generation. The Bureau's construction program is completed, costing \$23,439,644. In addition, \$514,656 was expended for investigation and construction of Hamilton and other dams which are not part of the project.

The dam and reservoir are operated by the Lower Colorado River Authority of Texas in accordance with a contract between the Authority and the United States dated March 13, 1941. A powerplant has been constructed by the Authority at the dam, renamed Mansfield Dam, and it operates and maintains the powerplant and markets all energy produced.

Repayment contracts.—As required by the Appropriation Act of May 10, 1939, the Secretary of the Interior determined that \$5,510,500 is the portion of the construction cost to be reimbursed to the United States. The reimbursement will be accomplished under the terms of contract 11r-1262, dated December 9, 1948, between the United States and the Lower Colorado River Authority. Repayment will be made in 35

equal annual installments of \$157,443, with the first installment to be paid on June 1, 1985.

Cost and repayment allocation:

Total project cost:

Marshall Ford Dam and Reservoir	\$23,439,644
Investigations for Hamilton, Marble Falls, Arnold, and Austin Dams	514,656
Total	23,954,300

Allocation of costs:

Reimbursable costs:

Power—repayment contract	5,510,500
Power—miscellaneous revenue	320

Nonreimbursable costs:

Power	4,956,222
Flood control, navigation and stream regulation	12,972,602
Investigations for Hamilton, Marble Falls, Arnold, and Austin Dams	514,656

Total	23,954,300
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The allocation of Marshall Ford Dam and Reservoir costs is determined as follows: The Secretary, pursuant to article 11 of a contract dated March 13, 1941, between the United States and the Lower Colorado River Authority, issued a "Report on Allocation of Construction Costs, Marshall Ford Dam" dated September 1948, in which \$12,888,636 was allocated to improvement of navigation, flood control, and stream regulations and \$10,399,267 to generation of power. The total estimated cost of Marshall Ford Dam was \$23,287,903 in 1948, and the completed cost is \$23,439,644. Allocations have been increased in the same proportions as those determined in the 1948 report to conform with the finally determined cost.

COLORADO RIVER FRONT WORK AND LEVEE SYSTEM

ARIZONA—CALIFORNIA—NEVADA

The Colorado River Front Work and Levee System was authorized by the acts of March 3, 1925 (43 Stat. 1186, 1198); January 21, 1927 (44 Stat. 1010, 1021); July 1, 1940 (54 Stat. 708); and particularly the act of June 28, 1946 (60 Stat. 338), as amended by the act of May 1, 1958 (72 Stat. 101).

The purpose of the project is to control the Colorado River from Lee Ferry, Ariz., to the Mexican border. The act of March 3, 1925, reimbursed the Reclamation fund for the cost of operation and maintenance of levees in the vicinity of Yuma theretofore incurred, and the payment thereafter of operation and maintenance costs not to exceed a specified amount annually. Subsequent acts increased the authorization and extended the application of the act to include the Colorado River between Yuma and Lee Ferry, Ariz. The act of June 28, 1946 (60 Stat. 338), as amended, authorized appropriations to defray the cost of (a) operating and maintaining the Colorado River Front Work and Levee System in Arizona, California, and Nevada; (b) constructing, improving, extending, operating, and maintaining the protection and drainage works and systems along the Colorado River; (c) controlling said river and improving, modifying, straightening, and rectifying the channel thereof; and (d) conducting investigations and studies in connection therewith.

The work consists of a long-range program of corrective measures designed to conserve the waters of the Colorado River, control the movement of sediment, protect communities, protect transportation facilities, protect agricultural land by controlling the bed and banks of the river, and preserve and enhance the fish and wildlife and recreational resources of the area. Channel alinement rectification, channel control structures, channel levees, channel revetment, and flood-

control levees are used to confine the river to the designed channel during variations of discharge.

The major constructed works include the Senator Wash Dam and Reservoir; about 43 miles of flood-control levees along the Colorado River upstream and downstream from Yuma, Ariz.; stabilization of about 10 miles of the river, with structures and channel levee, between Needles, Calif., and Topock, Ariz. (headwaters of Lake Havasu), and about 20 miles of the river, upstream from Needles in the Big Bend to Needles Reach; stabilization by bankline and river-training structures in the 28-mile Palo Verde division near Blythe, Calif., and in an 11-mile reach of the Parker division near Parker, Ariz.; sedimentation survey of Lake Mead; and a continuing program of the collection of data concerning river degradation and aggradation, sediment removed and deposited by the river, and data relating to the hydraulic characteristics of the river.

The major work in progress includes channel realignment and dredging in 16 miles of the Cibola division near Blythe, Calif.; dredging in off-channel backwaters in the Palo Verde division, also near Blythe, for improvement of fish and wildlife habitat; and channel dredging and related construction in 17 miles of the Yuma division near Yuma, Ariz. A major step in water salvage has been taken with construction of the Senator Wash offstream storage facility.

Senator Wash Dam and Reservoir, completed in January 1966, was constructed to effect water salvage through more efficient control of upstream releases and floodflows. It is an offstream reservoir on the California side of the Colorado River, immediately upstream of Imperial Dam, and has a capacity of 13,836 acre-feet. It is estimated that about 170,000 acre-feet of water are being salvaged annually through the operation of

Senator Wash Dam and Reservoir. Six reversible pump turbines are used to pump water from the river to the reservoir or to generate power when water is released from the reservoir. Senator Wash Reservoir is operated as an integral part of the water control facilities on the lower Colorado River.

All project works are maintained by Government forces, supplemented by contract work where feasible.

As of June 30, 1969, the total estimated cost of the project features was \$58,587,384.

Expenditures under the act of June 28, 1946, and preceding acts are nonreimbursable. However, the cost of the portion of the flood-control levees constructed in the Yuma area, which were required by reason of the construction of Morelos Dam, has been paid for by the Mexican Government. Operation and maintenance cost of the drain from Gila Siphon to Colorado

River is financed by advances from the benefiting Gila project water users.

Statement of cost and repayment:

Flood control plant	\$27,898,323
Senator Wash Dam and regulating reservoir	8,620,000
South Gila drainage facilities	2,233,412
Drainage channel, Gila Siphon to Colorado River ..	1,305,455
Channels, levees, and floodways	5,175,194
Ground water recovery and river regulations	12,798,407
Total plant	58,030,791
Corollary costs: Investigations	556,593
Total cost	58,587,384
Allocation—flood control:	
Nonreimbursable	57,162,520
Reimbursable—contributions	1,424,864
	<u>58,587,384</u>

COLORADO RIVER STORAGE PROJECT

COLORADO-NEW MEXICO-UTAH-WYOMING-ARIZONA

The Colorado River Storage project and 11 participating projects were authorized April 11, 1956, by Public Law 84-485. Additional participating projects have been authorized as follows: the Navajo Indian Irrigation and San Juan-Chama (initial stage) projects on June 13, 1962, by Public Law 87-483; the Bostwick Park, Fruitland Mesa, and Savery-Pot Hook projects on September 2, 1964, by Public Law 88-568; and the Animas-La Plata, Dallas Creek, Dolores, San Miguel, and West Divide projects on September 30, 1968, by Public Law 90-537. The Uintah unit of the Central Utah project was also authorized by Public Law 90-537, but with a special stipulation that construction of the unit shall not begin until the Secretary of the Interior certifies that it is physically and financially feasible. Pine River extension, one of the original 11 participating projects, was deauthorized by this same law.

The Colorado River Storage project as outlined in 1950 included 10 storage units. Four of these were authorized for construction by the act of April 11, 1956. Three of the units (Flaming Gorge, Glen Canyon, and Navajo) have been constructed. The fourth unit (Curecanti) is under construction. Together, the four units will provide 33,600,000 acre-feet of reservoir storage capacity and about 1,266,000 kilowatts of installed generating capacity. About three-fourths of both capacities will be provided by the Glen Canyon unit.

The storage units will perform two major essential functions. They will regulate streamflow so that water commitments to the Lower Colorado River Basin can be met in dry periods without curtailment of the development of water uses allotted the upper basin. Also, they will produce hydroelectric energy. Revenues from the sale of the electric energy left after payment of the operating costs and the reimbursable construction costs of the storage units will be available for assistance

in the repayment of costs of participating projects; namely, the irrigation costs of these projects that are beyond the payment ability of the irrigation water users. Transmission of the electric power to load centers will be a cooperative effort of existing public and private utilities and the Bureau of Reclamation. The storage project reservoirs will also directly supply some water for irrigation and municipal and industrial uses. Extensive power transmission lines and facilities have been and are being constructed in conjunction with the storage project. Facilities are being provided as appropriate for recreation and to mitigate losses of and improve conditions for the propagation of fish and wildlife. Minor flood control benefits are anticipated from the storage project.

Participating projects are Reclamation projects consuming water allotted to the Upper Colorado River Basin and requiring storage replacement and revenue assistance from the storage units in the repayment of irrigation costs. Twenty-two participating projects (and units) have been authorized to date. Also, the Uintah unit of the Central Utah project has been provisionally authorized pending approval of a feasibility report. Pine River extension has been deleted from the authorized projects and La Barge has been dropped from the list of those to be developed. The remaining 20 projects as now operating, or as planned, will provide water for irrigation on about 900,000 acres of land, over 400,000 acre-feet of water annually for municipal and industrial uses, about 166,000 kilowatts of electric power, and will provide recreation, fish and wildlife, flood control, and miscellaneous benefits. Plans for other participating projects are being prepared for presentation to Congress for authorization. Repayment of the irrigation costs not paid by the water users of the Eden project, Wyoming, will be completed using Colorado River Storage project power revenues.

CURECANTI UNIT

The Curecanti unit will develop storage and power possibilities along a 40-mile stretch of a deep canyon section of the Gunnison River above the Black Canyon of the Gunnison National Monument and below the town of Gunnison, Colo. The facilities include three dams and reservoirs with powerplants. The developments, in order moving downstream, are Blue Mesa, Morrow Point, and Crystal.

The Blue Mesa Dam and Reservoir and Powerplant are constructed. Initial power was produced September 1967. The dam is a zoned earthfill structure, 390 feet high and 785 feet long. The reservoir's total capacity is 941,000 acre-feet. The powerplant contains two 30,000-kilowatt generators.

Morrow Point Dam and Reservoir, about 11 miles downriver from Blue Mesa Dam, is essentially complete. The powerplant, which has the unique distinction of being entirely underground, is nearing completion. Initial power production is anticipated for 1971. The dam is a concrete thin-arch structure, 468 feet high and 720 feet long. The total storage capacity of the reservoir is 117,000 acre-feet. The powerplant contains two 60,000-kilowatt generators.

Crystal Dam and Reservoir are to be constructed about 8 miles below Morrow Point Dam. It will be a zoned earthfill structure, 230 feet high and 660 feet long. The capacity of the reservoir will be 27,240 acre-feet. The powerplant will house a single 28,000-kilowatt generator. Initial power production is tentatively scheduled for November 1975.

Power transmission lines and facilities necessary to feed Curecanti unit power into the high-voltage transmission grid are being completed as needed as part of the unit. About \$2 million has been spent on measures and facilities to develop and improve recreation, fishing, and hunting opportunities on and adjacent to the Curecanti reservoirs. An additional \$7 million is scheduled to be spent for this purpose.

The total estimated cost of the unit is \$118,404,000. An additional \$11,436,065 is cost of other agencies under section 8 of the authorizing act for fish and wildlife (\$3,421,065) and recreation (\$8,015,000).

The estimated costs of major features are:

Blue Mesa Dam and Reservoir	\$31,120,000
Blue Mesa Powerplant	9,100,000
Blue Mesa switchyard	810,000
Morrow Point Dam and Reservoir	20,674,000
Morrow Point Powerplant	16,875,000
Morrow Point switchyard	1,250,000
Crystal Dam and Reservoir	20,780,000

Crystal Powerplant	6,700,000
Crystal switchyard	448,000
Other features	1,135,000
Interest during construction	9,512,000
Total	<u>118,404,000</u>

FLAMING GORGE UNIT

Flaming Gorge Dam is on the Green River, a major tributary of the Colorado River, in northeastern Utah about 20 miles west and 6 miles south of the corner common to Utah, Wyoming, and Colorado. The dam is a concrete, thin-arch structure, 502 feet high and 1,285 feet long. The reservoir has a total storage capacity of 3,789,000 acre-feet. The powerplant contains three 36,000-kilowatt generators, the last one installed February 1964. Initial power was produced November 1963. The Flaming Gorge Reservoir has become an extremely popular recreation and fishing area. About \$6 million has been spent by Department of the Interior agencies specifically to develop and improve the recreation and fishing potential of the reservoir area. Additional funds have been spent for this purpose by the U.S. Forest Service and the States of Utah and Wyoming. The Forest Service supervises the area for recreation.

The total estimated cost of the Flaming Gorge unit is \$68,615,739. Cost of other agencies under section 8 of the authorizing act totals an additional \$6,109,861, of which \$4,354,300 is for recreation and \$1,755,561 for fish and wildlife.

Cost of major features is estimated as follows:

Dam and Reservoir	\$46,181,337
Powerplant	12,716,286
Switchyard	2,649,577
Interest during construction	3,416,953
General property	3,426,355
Highways	225,231
Total	<u>68,615,739</u>

GLEN CANYON UNIT

Glen Canyon Dam is on the Colorado River in northern Arizona, about 13 river miles downstream from the Utah-Arizona State line and 16 river miles upstream from Lees Ferry. It is the only one of the authorized dams on the main stream of the Colorado River. Glen Canyon Dam is a gravity arch concrete structure, 710 feet high and 1,560 feet long. The dam is the fourth highest in the world and second in height only to Hoover Dam in the United States. The reservoir has a capacity of 27,000,000 acre-feet. When full, it

will cover about 163,000 acres and extend 186 miles up the Colorado River, nearly to the mouth of Green River, and 71 miles upstream on the tributary San Juan River. About 6,124,000 acre-feet of reservoir capacity is inactive and is useful for sediment accumulation, protection of fish, and helps provide the powerhead at the dam. A powerplant and a switchyard have been constructed at the dam. The powerplant includes eight generating units with a total installed capacity of 950,000 kilowatts. There is an access road and a bridge across the canyon about 900 feet downstream from the damsite.

Two 40-year water service contracts have been executed for water from Lake Powell for thermal-electric generation purposes. One facility is to be constructed in Utah and the other in Arizona. These contracts provide for the progressive development of plant facilities with the initial use of water scheduled for 1973 and full use of the contracted water by 1990. Renewal provisions are provided in the contracts. The rate for water is \$7.00 per acre-foot and the contractor is responsible for all arrangements for taking and using it.

The reservoir is a popular recreation and fishing attraction. Recreation facilities have been constructed at various sites, as well as a visitors' center near the dam. Storage of water in the reservoir was initiated January 23, 1963. Initial power was produced September 1964. The last generator was installed in February 1966.

The total estimated cost of the Glen Canyon unit is \$273,790,713. Cost of other agencies under section 8 of the authorizing act totals an additional \$28,846,080, of which \$507,580 is for fish and wildlife and \$28,338,500 for recreation. Total estimated cost of major features is as follows:

Glen Canyon Dam and Reservoir	\$157,592,785
Glen Canyon Powerplant	70,090,378
Glen Canyon switchyard	12,876,213
Page, Ariz., facilities	3,644,012
Highway and bridge	2,362,022
Interest during construction	22,118,680
Other facilities	3,242,928
Salt River—expedite construction	103,562
Plant, property, and equipment	272,030,580
Corollary costs:	
Interest during construction—M&I water ...	1,643,000
Investigation of abandoned work	117,133
Total	<u>273,790,713</u>

NAVAJO UNIT

Navajo Dam is on the San Juan River in New

Mexico about 34 miles east of Farmington. The dam is an earthfill structure, about 402 feet high and 3,648 feet long at the crest. The Navajo Reservoir has a total capacity of 1,709,000 acre-feet, of which about 673,000 acre-feet are inactive. The reservoir, when full, will inundate 15,300 acres and extend approximately 34 miles up the San Juan River from the dam. The outlet works were planned so that a powerplant could be installed. That plant will be installed as part of the Navajo Indian Irrigation participating project to provide pumping power for the project. Facilities for recreation have been constructed at points around the reservoir. A waterfowl area and a big-game range have been developed near the reservoir.

Storage of water in the reservoir was started June 1962. The Navajo Indian Irrigation project, when constructed, will obtain its water from the Navajo Reservoir, as will the Hammond project during years of low natural streamflow. The reservoir will also provide irrigation as well as municipal and industrial water, directly or indirectly, for other potential projects and uses in New Mexico including the authorized initial stage of the San Juan-Chama project.

Three long-term water service contracts have been approved by the Congress and executed for water use in the Four Corners area of New Mexico. These contracts provide for water service amounting to 64,250 acre-feet annually. These contracts have a termination date of 2005 and are not subject to renewal except by congressional authorization. The contractors have until year 1977 to put the contracted water to beneficial use. The rate for water is \$7.00 per acre-foot and the contractor has the sole responsibility for taking and putting the contracted water to beneficial use.

The total estimated cost of the Navajo unit is \$40,927,185. Costs of other agencies under section 8 of the authorizing act total an additional \$3,187,100, of which \$665,200 is for fish and wildlife and \$2,521,900 for recreation.

Cost allocation is:

Navajo Dam and Reservoir	\$38,284,111
Interest during construction	575,000
Highways and roads	44,047
Other facilities	108,027
Total plant, property, and equipment	39,011,185
Corollary construction cost: Interest during construction to be capitalized	1,916,000
Total	<u>40,927,185</u>

TRANSMISSION DIVISION

The authorizing act of April 11, 1956, provides that project powerplants and transmission facilities shall be operated in conjunction with other federal powerplants, present and potential, so as to produce the greatest practicable amount of power and energy that can be sold at firm power and energy rates. To carry out the provisions of the law, a high-voltage transmission grid is largely completed which interconnects the plants of the authorized units and participating projects of the storage project and effects interconnection with other Bureau projects and with public and private utility systems in the market area, which includes Arizona, Colorado, New Mexico, Utah, Wyoming, and parts of California and Nevada.

Major transmission lines as now constructed consist of approximately 476 miles of 345-kilovolt transmission lines, 814 miles of 230-kilovolt transmission lines, 315 miles of 138-kilovolt transmission lines, and 117 miles of 115-kilovolt transmission lines. Thirteen substations have been constructed, as well as additions to three existing substations. Construction of the transmission system as of July 1969 was approximately 80 percent completed. All major transmission facilities authorized are expected to be completed by 1978.

The constructed features of the Transmission division will be operated and maintained by the United States.

Contracts covering interconnections and transmission service are in effect between the United States and the principal utilities in the Colorado River Storage project marketing area. The utilities with which contracts are in effect consist of Arizona Public Service Co., Public Service Co. of Colorado, Public Service Co. of New Mexico, Pacific Power and Light Co., Utah Power and Light Co., California-Pacific Utilities Co., Colorado-Ute Electric Assn., and Salt River Project Agricultural Improvement and Power District.

The contract with the Utah Power and Light Co. contains wheeling arrangements under which preference customers receive storage project power over the facilities of the company. The contract with California-Pacific Utilities Co. also provides for use of company facilities for wheeling.

The Public Service Co. of New Mexico contract contains a wheeling arrangement under which customers of the United States receive power over the facilities of the company up to 140,000 kilowatts. When the United States' loads exceed 140,000 kilowatts, the United States will build a 230-kilovolt Shiprock-Albuquerque line, provided that such construction may be deferred if additional capacity is made available by the company. Under agreements with Arizona Public Service Co., Pacific Power and Light Co., and Public Service of Colorado, the Bureau and the companies are coordinating the use of transmission facilities to provide for the interchange and transmission of power. The contracts with Colorado-Ute and Salt River provide for interconnection of facilities, interchange of electric power and energy, and for wheeling of power and energy by the United States for these two organizations.

In addition to the interconnection with the utilities, the storage project is also interconnected in Colorado and Wyoming to the Bureau's Western Missouri River Basin project transmission system and in Arizona to the Bureau's Parker-Davis project transmission system.

Coordinated operation of the storage project transmission system and the aforementioned systems will provide for a strong and large grid for the supply of power and energy to preference users in the market area. The total estimated cost of the Transmission division is \$159,830,618.

Costs of major features are:

Curecanti-Hayden line and substations	\$15,752,673
Flagstaff-Pinnacle Peak lines and substations	25,736,474
Glen Canyon-Flagstaff lines	15,562,635
Glen Canyon-Shiprock line and substation	10,787,161
Other lines and substations	48,139,578
General and other property	4,691,458
Interest during construction	6,207,366
Cost to complete construction	32,238,001
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Total electric plant	159,115,346
Corollary costs:	
Investigations of abandoned work	715,272
Total	159,830,618

IRRIGATION, POWER, AND MUNICIPAL AND INDUSTRIAL WATER DATA—AUTHORIZED COLORADO RIVER
STORAGE UNITS AND PARTICIPATING PROJECTS
[Unit—1,000]

Unit and project ¹	Irrigable area (acres)			Total reservoir storage capacity (acre-feet)	Installed powerplant capacity (kilowatts)	Average annual water supply (acre-feet)		
	Full service land	Supplemental service land	Total			Increase in supply		Increase in stream depletion
						Useable irrigation	Municipal and industrial	
Storage units:								
Glen Canyon, Ariz.-Utah.....				27,000.0	900.0		^{3,4} 142.0	576.0
Flaming Gorge, Utah-Wyo.....				3,788.9	108.0			60.0
Navajo, N. Mex.-Colo.....				1,708.6			³ 64.2	40.0
Curecanti, Colo.				1,085.2	208.0			16.0
Subtotal				33,582.7	1,216.0		206.2	692.0
Participating projects:								
Paonia, Colo.	2.2	13.1	15.3	21.0		20.1		9.8
Smith Fork, Colo.	1.4	8.0	9.4	13.7		10.3		5.7
Florida, Colo.	5.4	13.0	18.4	40.1		25.7		13.9
Silt, Colo.	2.1	4.5	6.6	13.6		12.8		6.1
Bostwick Park, Colo.	1.6	4.5	6.1	13.5		11.1		4.2
Fruitland Mesa, Colo. ²	15.9	7.0	22.9	48.2		57.9		28.0
Dallas Creek, Colo. ²	14.9	8.7	23.6	164.9		60.3	15.0	37.0
Dolores, Colo. ²	32.3	28.7	61.0	389.7		120.8	6.1	126.9
San Miguel, Colo. ²	26.4	12.5	38.9	107.4		77.8	44.0	121.8
West Divide, Colo. ²	18.9	21.0	39.9	122.5		115.6	77.5	193.1
Animas-La Plata, Colo.- N. Mex. ²	46.5	25.6	72.1	202.9		188.9	76.2	146.4
Hammond, N. Mex.	3.9		3.9			18.5		9.0
San Juan-Chama, Colo.-N. Mex.	34.0	82.0	116.0	400.0		62.0	48.0	110.0
Vernal unit, C.U.P., Utah		14.7	14.7	38.2		17.9	1.6	11.8
Bonneville unit, C.U.P., Utah	43.7	112.8	156.5	1,359.4	133.5	219.0	79.0	165.9
Upalco unit, C.U.P., Utah ²		42.6	42.6	78.4		20.5		10.3
Jensen unit, C.U.P., Utah ²	0.4	3.6	4.0	26.0		4.7	18.0	15.0
Emery County, Utah	0.8	18.0	18.8	67.9		25.2		16.5
Lyman, Utah-Wyo.		42.7	42.7	46.3		49.0		9.8
Seedskadee, Wyo.	59.0		59.0	345.4	10.0	264.0	60.0	165.0
Subtotal	309.4	463.0	772.4	3,499.1	143.5	1,382.1	425.4	1,206.2
Total	309.4	463.0	772.4	37,081.8	1,359.5	1,382.1	631.6	1,898.2

¹ Projects not included are La Barge, Wyo., and Pine River extension, Colorado and New Mexico, construction of which has been indefinitely deferred; Navajo Indian irrigation, New Mexico, and Uintah unit, Central Utah project, Utah.

² Not yet under construction.

³ Under contract—currently not being used.

⁴ Also supplies water to the city of Page, Ariz.

COLORADO RIVER STORAGE PROJECT—CONSOLIDATED STATEMENT OF PROJECT COST AND REPAYMENT
AS OF JUNE 30, 1969

	Total project	Irrigation	Power	M&I water	Flood control	Highway improvements	Fish and wildlife	Recreation	Roads
Plant, property and equipment:									
Multipurpose plant	\$301,864,429	\$93,244,000	\$169,920,038	\$11,841,423	\$3,714,000	\$184,000	\$21,329,668		\$2,631,300
Electric plant	236,932,924		1,236,932,924						
Construction work in progress	39,524,291	9,717	39,514,574						
Interest during construction	3,243,284		3,243,284						
Other physical property	3,657,762	1,133,536	2,251,880	119,935			152,411		
Estimated cost to complete construction	71,954,160	606,441	71,279,465	26,763			41,491		
Subtotal plant, property and equipment	657,176,850	94,993,694	522,142,165	11,988,121	3,714,000	184,000	21,523,570		2,631,300
Corollary construction costs:									
Interest during construction	3,559,000			3,559,000					
Investment of abandoned work	832,405	36,436	787,215	3,855			4,899		
Subtotal corollary construction costs	4,391,405	36,436	787,215	3,562,855			4,899		
Total cost	661,568,255	95,030,130	522,929,380	15,550,976	3,714,000	184,000	21,528,469		2,631,300
Costs by other government agencies, section 8	49,579,106								
Total	711,147,361	95,030,130	522,929,380	15,550,976	3,714,000	184,000	27,877,875	\$43,229,700	2,631,300
Repayment and other credits:									
Costs financed by Colorado River Development Fund									
Contributions	976,702	207,735	743,434	25,533					
Power revenues	3,197,960	13,258	1,217,197	1,354					1,966,151
Reserve for depreciation and replacements	1,568,873,189	94,761,260	1,425,679,929	48,432,000					
Subtotal repayment	4,344,006		4,344,006						
Subtotal repayment	1,577,391,857	94,982,253	1,431,984,566	48,458,887					1,966,151
Other credits:									
Bureau of Public Roads—bridge	600,000								600,000
National Park Service—roads	65,149								65,149
National Park Service—airport extension	67,000	13,544	51,946	1,510					
Federal Aviation Agency—airport extension	169,837	34,333	131,678	3,826					
Flood control	3,714,000				3,714,000				
Fish and wildlife (includes \$6,349,406—section 8)	27,877,875						27,877,875		
Highway relocation (P. L. 87-874)	184,000					184,000			

National Park Service—sec- tion 8	43,229,700								43,229,700		
Total repayment and other credits	1,653,299,418	95,030,130	1,432,168,190	48,464,223	3,714,000	184,000	27,877,875		43,229,700	2,631,300	
Surplus	942,152,057		909,238,810	32,913,247							

¹ Includes \$103,562 from Salt River Water Pump District to expedite powerplant.

HISTORICAL AND PROJECTED REPAYMENT OF
[Unit—

Fiscal year	Power investment, Storage and participating projects			M&I water investment, Storage project			Irrigation investment, Storage project			Irrigation investment, participating projects		
	Power revenues applied	Electric plant		M&I revenues applied	M&I plant		Power and M&I revenues applied	Irrigation plant		Irrigation and apportioned revenues applied	Irrigation plant	
		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance
1961												
1962										24	7,307	7,283
1963								30,790	30,790		11,090	11,066
1964	174	56,915	56,741					40,108	40,108		15,373	15,349
1965	(2,630)	246,164	248,620					72,388	72,388		18,082	18,058
1966	(498)	346,175	349,130		11,867	11,867		87,823	87,823		27,411	27,387
1967	(1,243)	358,646	362,844	(737)	11,819	12,557		89,055	89,055	31	37,817	37,761
1968	833	402,241	405,605	780	13,087	13,044		93,063	93,063	51	44,634	44,527
1969	2,338	410,794	411,820	5	13,600	13,552		94,145	94,145	50	45,086	44,929
Subtotal.	(1,026)	410,794	411,820	48	13,600	13,552		94,145	94,145	156	45,086	44,929
1970	4,028	437,708	434,707	6	13,988	13,934		94,387	94,387	51	47,971	47,763
1971	6,028	461,038	452,009	6	14,387	14,327		94,652	94,652	112	68,785	68,466
1972	7,932	466,651	449,690	154	14,649	14,435		94,751	94,751	188	92,128	91,621
1973	11,274	467,146	438,911	173	14,864	14,477		94,751	94,751	222	102,285	101,556
1974	11,825	478,322	438,262	173	15,080	14,520		94,751	94,751	251	106,638	105,658
1975	12,785	508,988	456,143	190	15,287	14,537		94,761	94,761	283	126,937	125,674
1976	13,910	528,293	462,439	394	15,519	14,375		94,761	94,761	304	191,448	189,881
1977	13,627	572,593	493,112	484	15,519	13,891		94,761	94,761	321	191,448	189,560
1978	13,892	572,593	479,220	498	15,519	13,393		94,761	94,761	332	332,520	330,300
1979	14,832	572,593	464,388	512	15,519	12,881		94,761	94,761	332	383,493	380,941
1980	15,838	572,593	448,550	555	15,519	12,326		94,761	94,761	391	400,709	397,766
1981	16,930	572,593	431,619	646	15,519	11,686		94,761	94,761	404	416,151	412,804
1982	16,757	572,593	414,863	719	15,519	10,961		94,761	94,761	485	421,111	417,279
1983	17,371	572,593	397,492	789	15,519	10,172		94,761	94,761	520	547,303	542,951
1984	17,338	572,593	380,154	812	15,519	9,360		94,761	94,761	662	657,096	652,082
1985	16,877	572,593	363,277	870	15,519	8,490		94,761	94,761	811	674,966	669,138
1986	18,330	572,593	344,917	1,033	15,519	7,457		94,761	94,761	934	674,966	668,204
1987	19,227	572,593	325,720	1,166	15,519	6,291		94,761	94,761	1,110	674,966	667,094
1988	19,780	572,593	305,940	1,199	15,519	5,092		94,761	94,761	1,184	674,966	665,910
1989	20,228	572,593	285,713	1,234	15,519	3,858		94,761	94,761	1,291	674,966	664,619
1990	20,716	572,593	264,997	1,269	15,519	2,589		94,761	94,761	1,291	674,966	663,328
1991	20,895	572,593	244,102	1,306	15,519	1,283		94,761	94,761	1,318	674,966	662,010
1992	20,912	572,593	223,190	1,283	15,519	0	60	94,761	94,761	1,337	674,966	660,673
1993	21,179	572,593	202,011		15,519		1,380	94,761	93,321	1,610	674,966	659,063
1994	21,314	572,593	180,697		15,519		1,380	94,761	91,941	1,900	674,966	657,163
1995	21,377	572,593	159,320		15,519		1,380	94,761	90,561	1,949	674,966	655,214
1996	21,706	572,593	137,613		15,519		1,380	94,761	89,181	2,005	674,966	653,209
1997	21,709	572,593	115,904		15,519		1,380	94,761	87,801	2,006	674,966	651,203
1998	21,239	572,593	94,665		15,519		1,380	94,761	86,421	2,006	674,966	649,197
1999	20,746	572,593	73,920		15,519		1,380	94,761	85,041	2,006	674,966	647,191
2000	19,171	572,593	54,749		15,519		1,380	94,761	83,661	2,006	682,809	653,028
2001	19,750	572,593	34,999		15,519		1,380	94,761	82,281	2,006	682,809	651,022
2002	18,882	572,593	16,117		15,519		1,380	94,761	80,901	2,078	682,809	648,944
2003	16,117	572,593	0		15,519		4,717	94,761	76,184	2,078	682,809	646,866
2004		572,593			15,519		23,408	94,761	52,776	2,078	682,809	644,788
2005		572,593			15,519		21,668	94,761	31,108	2,078	682,809	642,710
2006		572,593			15,519		19,973	94,761	11,135	2,078	682,809	640,632
2007		572,593			15,519		11,135	94,761		10,724	682,809	631,163
2008		572,593			15,519			94,761		23,671	682,809	610,637
2009		572,593			15,519			94,761		23,850	682,809	589,957
2010		572,593			15,519			94,761		24,481	682,809	567,809
2011		572,593			15,519			94,761		25,246	682,809	542,563
2012		572,593			15,519			94,761		26,077	682,809	516,486
2013		572,593			15,519			94,761		25,842	682,809	490,644
2014		572,593			15,519			94,761		24,967	682,809	465,677
2015		572,593			15,519			94,761		21,280	682,809	444,397
2016		572,593			15,519			94,761		24,517	682,809	419,850
2017		572,593			15,519			94,761		22,282	682,809	397,568
2018		572,593			15,519			94,761		23,264	682,809	374,304
2019		572,593			15,519			94,761		25,908	682,809	348,396
2020		572,593			15,519			94,761		26,966	682,809	321,430
2021		572,593			15,519			94,761		26,880	682,809	294,550
2022		572,593			15,519			94,761		27,115	682,809	267,435
2023		572,593			15,519			94,761		26,927	682,809	240,508
2024		572,593			15,519			94,761		21,285	682,809	219,223
2025		572,593			15,519			94,761		20,333	682,809	198,890
2026		572,593			15,519			94,761		20,590	682,809	178,300
2027		572,593			15,519			94,761		20,307	682,809	157,993
2028		572,593			15,519			94,761		20,591	682,809	137,402
2029		572,593			15,519			94,761		15,094	682,809	122,308
2030		572,593			15,519			94,761		13,361	682,809	108,947
2031		572,593			15,519			94,761		13,399	682,809	95,548
2032		572,593			15,519			94,761		13,876	682,809	81,672
2033		572,593			15,519			94,761		13,860	682,809	67,812
2034		572,593			15,519			94,761		13,616	682,809	54,196
2035		572,593			15,519			94,761		13,016	682,809	41,180

AUTHORIZED REIMBURSABLE INVESTMENT

[\$1,000]

M&I investment, participating projects			Repayment recapitulation			Cumulative apportioned revenues available for Utah unit and future participating projects				
M&I revenues applied	M&I plant		Total revenues applied	Total plant		Total	Colorado	New Mexico	Utah	Wyoming
	In service at end of year	Unpaid balance		In service at end of year	Unpaid balance					
			24	7,307	7,283					
24	54	525	24	42,427	42,379					
(-4)	556	537	170	112,952	112,735					
5	577	552	(-2,625)	337,211	339,618					
8	593	560	(-490)	473,869	476,761					
(-9)	669	645	(-1,958)	498,006	502,862					
4	669	642	1,668	553,694	556,881					
(-9)	1,570	1,551	2,384	565,195	565,991					
19	1,570	1,551	(-803)	565,195	565,991					
3	1,579	1,557	4,088	595,633	592,348					
10	11,163	11,131	6,156	650,025	640,584					
11	11,163	11,120	8,285	679,342	661,617					
70	14,452	14,339	11,739	693,498	664,033					
153	14,452	14,186	12,402	709,243	667,377					
213	14,452	13,973	13,471	760,425	705,088					
275	14,452	13,698	13,983	844,473	775,153					
1,894	34,391	31,743	16,326	908,712	823,066					
1,149	51,529	47,732	15,871	1,066,922	965,405					
1,289	78,101	73,015	16,965	1,144,467	1,025,985					
1,623	78,101	71,392	18,407	1,161,683	1,024,794					
1,744	99,369	90,916	19,724	1,198,393	1,041,780					
1,272	127,715	117,990	19,233	1,231,699	1,055,853					
1,461	189,473	178,287	20,141	1,419,649	1,223,662					
1,123	189,473	177,164	19,935	1,529,442	1,313,520					
1,186	199,322	185,827	19,747	1,557,161	1,321,492					
1,332	199,322	184,495	21,629	1,557,161	1,299,863					
1,402	199,322	183,093	22,905	1,557,161	1,276,958					
1,517	199,322	181,576	23,680	1,557,161	1,253,278					
1,636	199,322	179,940	24,389	1,557,161	1,228,889					
1,718	199,322	178,222	24,994	1,557,161	1,203,895					
1,967	199,322	176,255	25,486	1,557,161	1,178,409					
2,087	199,322	174,168	25,679	1,557,161	1,152,730					
2,272	199,322	171,896	26,441	1,557,161	1,126,289					
2,374	199,322	169,522	26,968	1,557,161	1,099,321					
2,474	199,322	167,048	27,180	1,557,161	1,072,141					
2,580	199,322	164,468	27,671	1,557,161	1,044,470					
2,689	199,322	161,779	27,784	1,557,161	1,016,686					
2,803	199,322	158,976	27,428	1,557,161	989,258					
2,918	199,322	156,058	27,050	1,557,161	962,208					
3,040	199,322	153,018	25,597	1,565,004	944,454					
3,412	199,322	149,606	26,548	1,565,004	917,906					
3,522	199,322	146,084	25,862	1,565,004	892,044					
3,632	199,322	142,452	26,544	1,565,004	865,500					
3,764	199,322	138,688	29,250	1,565,004	836,250					
3,881	199,322	134,807	27,627	1,565,004	808,623					
4,005	199,322	130,802	26,056	1,565,004	782,567					
4,132	199,322	126,670	25,991	1,565,004	757,831					
4,254	199,322	122,416	27,925	1,565,004	733,051					
4,363	199,322	118,053	28,213	1,565,004	708,008					
4,501	199,322	113,552	28,982	1,565,004	681,359					
5,473	199,322	108,079	30,719	1,565,004	650,640					
5,648	199,322	102,431	31,725	1,565,004	618,915					
5,828	199,322	96,603	31,670	1,565,004	587,245					
6,013	199,322	90,590	30,980	1,565,004	556,265					
6,203	199,322	84,387	27,483	1,565,004	528,782					
6,401	199,322	77,986	30,948	1,565,004	497,834					
6,603	199,322	71,383	28,885	1,565,004	468,949					
6,815	199,322	64,568	30,079	1,565,004	438,870					
6,008	199,322	58,560	31,916	1,565,004	406,954					
5,966	199,322	52,594	32,932	1,565,004	374,022					
6,279	199,322	46,315	33,159	1,565,004	340,863					
6,482	199,322	39,833	33,597	1,565,004	307,266					
6,691	199,322	33,142	33,618	1,565,004	273,648					
2,695	199,322	30,447	23,980	1,565,004	249,668	4,461		2,942		1,519
2,783	199,322	27,664	23,116	1,565,004	226,552	11,571		6,545		5,026
2,874	199,322	24,790	23,464	1,565,004	203,088	18,817		10,217		8,600
2,968	199,322	21,822	23,275	1,565,004	179,813	26,214		13,965		12,249
3,063	199,322	18,759	23,654	1,565,004	156,159	33,705		17,767		15,941
2,991	199,322	15,768	18,085	1,565,004	138,074	46,334		21,503	5,243	19,588
1,975	199,322	13,793	15,336	1,565,004	122,738	60,062		25,144	11,784	23,134
2,039	199,322	11,754	15,438	1,565,004	107,300	73,793		28,786	18,327	26,680
2,106	199,322	9,648	15,982	1,565,004	91,318	88,115		32,585	25,152	30,378
1,431	199,322	8,217	15,291	1,565,004	76,027	102,228		36,350	31,835	34,043
1,270	199,322	6,947	14,886	1,565,004	61,141	116,053		40,017	38,423	37,613
1,310	199,322	5,637	14,326	1,565,004	46,815	129,106		43,479	44,643	40,984

REPAYMENT OF RECLAMATION PROJECTS

HISTORICAL AND PROJECTED REPAYMENT OF
[Unit—

Fiscal year ¹	Power investment, Storage and participating projects			M&I water investment, Storage project			Irrigation investment, Storage project			Irrigation investment, participating projects		
	Power revenues applied	Electric plant		M&I revenues applied	M&I plant		Power and M&I revenues applied	Irrigation plant		Irriga- tion and appor- tioned revenues applied	Irrigation plant	
		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance		In service at end of year	Unpaid balance
2036		572,593			15,519			94,761		13,102	682,809	28,078
2037		572,593			15,519			94,761		7,018	682,809	21,060
2038		572,593			15,519			94,761		3,549	682,809	17,511
2039		572,593			15,519			94,761		3,457	682,809	14,054
2040		572,593			15,519			94,761		3,518	682,809	10,536
2041		572,593			15,519			94,761		3,434	682,809	7,102
2042		572,593			15,519			94,761		3,482	682,809	3,620
2043		572,593			15,519			94,761		736	682,809	2,884
2044		572,593			15,519			94,761		184	682,809	2,700
2045		572,593			15,519			94,761		136	682,809	2,564
2046		572,593			15,519			94,761		49	682,809	2,515
2047		572,593			15,519			94,761		49	682,809	2,466
2048		572,593			15,519			94,761		49	682,809	2,417
2049		572,593			15,519			94,761		49	682,809	2,368
2050		572,593			15,519			94,761		49	682,809	2,319
2051		572,593			15,519			94,761		49	682,809	2,270
2052		572,593			15,519			94,761		49	682,809	2,221
2053		572,593			15,519			94,761		49	682,809	2,172
2054		572,593			15,519			94,761		49	682,809	2,123
2055		572,593			15,519			94,761		49	682,809	2,074
2056		572,593			15,519			94,761		49	682,809	2,025
2057		572,593			15,519			94,761		49	682,809	1,976
2058		572,593			15,519			94,761		49	682,809	1,927
2059		572,593			15,519			94,761		49	682,809	1,878
Total	572,593	572,593		15,519	15,519		94,761	94,761		690,834	682,809	1,878

¹ First fiscal year established by first development period notice issued on the Paonia project effective 1962 and the last fiscal year established by the estimated end of the repayment period on the last irrigation block of the Seedskadee project.

² Deferred payments on Indian lands.

³ \$137,000 to repay reimbursable investigation costs of Pine River extension participating project deducted.

⁴ \$136,000 to repay reimbursable investigation costs of La Barge participating project deducted.

AUTHORIZED REIMBURSABLE INVESTMENT—Continued

\$1,000]

M&I investment, participating projects			Repayment recapitulation							
M&I revenues applied	M&I plant		Total revenues applied	Total plant		Cumulative apportioned revenues available for Utah unit and future participating projects				
	In service at end of year	Unpaid balance		In service at end of year	Unpaid balance	Total	Colorado	New Mexico	Utah	Wyoming
955	199,322	4,682	14,057	1,565,004	32,758	142,372		46,998	50,964	44,410
986	199,322	3,696	8,004	1,565,004	24,754	158,240	1/4,582	19,992	56,342	47,324
806	199,322	2,890	4,355	1,565,004	20,399	180,092	13,713	53,366	62,404	50,609
631	199,322	2,259	4,088	1,565,004	16,311	202,435	23,049	56,816	68,602	53,968
651	199,322	1,608	4,169	1,565,004	12,142	225,787	32,807	60,442	75,080	57,478
673	199,322	935	4,107	1,565,004	8,035	248,915	42,471	63,993	81,496	60,955
662	199,322	273	4,144	1,565,004	3,891	272,081	52,151	67,570	87,922	64,438
273	199,322	0	1,009	1,565,004	2,884	295,675	62,010	71,213	94,467	67,985
	199,322		184	1,565,004	2,700	317,391	71,084	74,566	100,491	71,250
	199,322		136	1,565,004	2,564	337,881	79,646	77,730	106,175	74,330
	199,322		49	1,565,004	2,515	358,984	88,463	80,989	112,029	77,503
	199,322		49	1,565,004	2,466	377,939	96,383	83,916	117,287	80,353
	199,322		49	1,565,004	2,417	399,819	105,525	87,295	123,356	83,643
	199,322		49	1,565,004	2,368	422,977	115,202	90,871	129,780	87,124
	199,322		49	1,565,004	2,319	446,962	125,224	94,575	136,433	90,730
	199,322		49	1,565,004	2,270	470,844	135,203	98,263	143,058	94,320
	199,322		49	1,565,004	2,221	495,286	145,416	102,037	149,838	97,995
	199,322		49	1,565,004	2,172	519,007	155,328	105,700	156,418	101,561
	199,322		49	1,565,004	2,123	542,536	165,159	109,333	162,945	105,099
	199,322		49	1,565,004	2,074	566,291	175,085	113,001	169,534	108,671
	199,322		49	1,565,004	2,025	590,231	185,088	116,698	176,174	112,271
	199,322		49	1,565,004	1,976	614,395	195,185	120,429	182,877	115,904
	199,322		49	1,565,004	1,927	638,797	205,381	124,197	189,646	119,573
	199,322		49	1,565,004	1,878	663,299	215,619	127,981	196,443	123,256
199,322	199,322		1,573,029	1,565,004		663,299	215,619	127,981	196,443	123,256

COLUMBIA BASIN PROJECT

WASHINGTON

The Columbia Basin project was begun with the allocation of NIRA funds pursuant to title II of the act of June 16, 1933. The project was authorized by the Rivers and Harbors Act, approved August 30, 1935 (49 Stat. 1028). The Columbia Basin Project Act of March 10, 1943 (57 Stat. 14), reauthorized the project, bringing it under the provisions of the Reclamation Project Act of 1939 (53 Stat. 1187). Primary purposes of the project are (1) irrigation, (2) power generation, (3) river regulation, and (4) flood control and navigation, with additional secondary benefits in recreational development.

The project irrigation facilities are designed to deliver a full water supply to 1,095,000 acres of land previously used only for dry-farming or grazing. In 1969, the irrigable acreage for service was 512,650 acres, of which 460,641 acres were irrigated. The gross crop value was \$101,710,110, averaging \$220.80 per irrigated acre.

The output of the Grand Coulee Powerplant in excess of project requirements is marketed by the Bonneville Power Administration.

Principal features include Grand Coulee Dam, forming Franklin D. Roosevelt Lake, with a length of 151 miles and an active storage capacity of 5,232,000 acre-feet; Grand Coulee right and left powerplants, which will have an installed capacity of 2,280,000 kilowatts upon completion of generator rewindings now in progress; the switchyards and transmission lines to connect with the Bonneville Power Administration system; the primary irrigation pumping plant containing six 65,000 horsepower pumps, with a total capacity of 8,100 cubic feet per second; the feeder canal, with capacity of 16,000 cubic feet per second; Banks Lake, an equalizing reservoir formed by the North and Dry Falls Dams, with a length of 27 miles and an active storage capacity of 761,800 acre-feet; the Main Canal, with a length of 13 miles and a capacity of 13,200

cubic feet per second; Bacon Siphon, with a length of 1,000 feet and Bacon Tunnel, with a length of 2 miles; the West Canal system with a length of 83 miles and 5,100 cubic feet per second initial capacity; the East Low Canal, with a length of 83 miles and 4,500 second-foot initial capacity; O'Sullivan Dam, forming the Potholes Reservoir with active storage of 358,000 acre-feet; and the Potholes Canal system, with a length of 65 miles and an ultimate capacity of 3,900 second-feet. There are 334 miles of main canals and 1,940 miles of laterals, supplemented by 1,718 miles of drains and wasteways completed to date.

A third powerplant, which is now under construction, is expected to eventually bring the powerplant's total electrical output to 9.5 million kilowatts. The presently authorized 3.6 million kilowatt capacity will be installed in six 600,000-kilowatt units, and another six units are expected to be installed at a later date (subject to congressional authorization). The addition of six pump-generator units to the Grand Coulee Pumping Plant will ultimately bring the rated capacity of the Grand Coulee complex to 9.8 million kilowatts.

The United States operates all power facilities and certain irrigation reserved works common to the irrigation system. Except for the irrigation reserved works, operation and maintenance of completed irrigation facilities was assumed by the three Irrigation Districts on January 26, 1969. Reserved works consist primarily of Grand Coulee Pumping Plant, Banks Lake and Potholes Reservoir storage facilities, and the Soap Lake and Lake Lenore protective works.

Repayment contracts.—Contracts were executed with the South Columbia Basin, East Columbia Basin, and Quincy Columbia Basin Irrigation Districts in October 1945 for repayment of construction charges. Amendatory repayment contracts have since been negotiated and executed. The amendatory contracts primarily include provisions for: removal of construction cost limi

tations for project irrigation and drainage works and substitution of a requirement for a finding of economic and financial feasibility; capitalizing the cost of drainage works; increasing the maximum construction charge repayment obligations of the Districts; increasing the average construction charge from \$85 to \$131.60 per irrigable acre; and extending the construction repayment period from 40 to 50 years.

CONTRACTS

1945, October 9: Contract Ilr-1444 with South Columbia Basin Irrigation District for repayment of construction cost of irrigation system for lands in the District up to a maximum of \$33,700,000. Repayment in 40 years following 10-year development period. Construction and O&M charges due one-half on January 31 and one-half on July 31.

1945, October 9: Contract Ilr-1442 with East Columbia Basin Irrigation District for repayment of construction cost of irrigation system for lands in the District up to a maximum of \$37,800,000. Repayment in 40 years following 10-year development period. Construction and O&M charges due one-half on January 31 and one-half on July 31.

1945, October 9: Contract Ilr-1443 with Quincy-Columbia Basin Irrigation District for repayment of construction cost of irrigation system for lands in the District up to a maximum of \$24,900,000. Repayment in 40 years following 10-year development period. Construction and O&M charges due one-half on January 31 and one-half on July 31.

1962, October 2: Contract 14-06-100-2564 with Quincy-Columbia Basin Irrigation District for repayment of construction cost of irrigation system for approximately 257,000 acres of land in the District up to a maximum of \$35,512,268. Repayment in 50 years following 10-year development period. Construction and O&M charges due one-half on January 31 and one-half on July 31.

1963, January 21: Contract 14-06-100-2789 with South Columbia Basin Irrigation District for repayment of construction cost of irrigation system for approximately 300,000 acres of land in the District up to a maximum of \$41,705,917. Repayment in 50 years following 10-year development period. Construction charges due on June 30; O&M charges due one-half on January 31 and one-half on July 31.

1963, January 28: Contract 14-06-100-2799 with East Columbia Basin Irrigation District for repayment of construction

cost of irrigation system for approximately 472,000 acres of land in the District up to a maximum of \$71,752,846. Repayment in 50 years following 10-year development period. Construction charges due on June 30; O&M charges due one-half on January 31 and one-half on July 31.

1968, December 18: Contract 14-06-100-6418 with Quincy-Columbia Basin Irrigation District. An amendatory, supplemental, and replacement contract providing for the transfer to the District of the O&M of irrigation facilities within the District. Construction repayment terms unchanged. O&M charges for reserved works, one-half mill power and other services due one-half on April 30 and one-half on June 30.

1968, December 18: Contract 14-06-100-6419 with East Columbia Basin Irrigation District. An amendatory, supplemental, and replacement contract providing for the transfer to the District of the O&M of irrigation facilities within the District. Construction repayment terms unchanged. O&M charges for reserved works, one-half mill power and other services due one-half on April 30 and one-half on June 30.

1968, December 18: Contract 14-06-100-6420 with South Columbia Basin Irrigation District. An amendatory, supplemental, and replacement contract providing for the transfer to the District of the O&M of irrigation facilities within the District. Construction repayment terms unchanged. O&M charges for reserved works, one-half mill power and other services due one-half on April 30 and one-half on June 30.

Various dates: 57 contracts negotiated with owners of part-time farm units in irrigation block No. 2 for repayment of special construction costs to a total of \$26,828. Repayment is 10 years from date of contract.

Various dates: 36 contracts negotiated with owners of part-time farm units in irrigation block No. 701 for repayment of special construction costs to a total of \$18,232. Repayment is 10 years from date of contract.

Various dates: 52 contracts negotiated with owners of part-time farm units in irrigation block No. 41 for repayment of special construction costs to a total of \$40,000. Repayment is 10 years from date of contract.

Summary of status of repayment contracts:

	Irrigation districts		Part-time farm units	Totals
Total value of contracted repayment	\$144,102,000	\$87,250		\$144,189,250
Total matured charges	1,452,815	87,176		1,539,991
Total matured charges repaid	1,452,815	87,176		1,539,991
Total matured charges unpaid		0	0	0

CONSTRUCTION REPAYMENT HISTORY—FULL-TIME FARM UNITS

Fiscal year	Total obligation of water users ¹	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
South Columbia Basin Irrigation District:								
1960-----	\$33,700,000	\$4,452	-----	\$4,452	\$4,452	-----	\$4,452	\$4,452
1961-----	33,700,000	10,050	-----	10,050	10,050	-----	10,050	14,502
1962-----	33,700,000	10,432	-----	10,432	10,432	-----	10,432	24,934
1963-----	33,700,000	9,381	-----	9,381	9,381	-----	9,381	34,315
1964-----	41,705,917	10,171	-----	10,171	10,171	-----	10,171	44,486
1965-----	41,705,917	15,414	-----	15,414	15,414	-----	15,414	59,900
1966-----	41,705,917	42,272	-----	42,272	42,272	-----	42,272	102,172
1967-----	41,705,917	85,208	-----	85,208	85,208	-----	85,208	187,380
1968-----	41,705,917	78,903	-----	78,903	78,903	-----	78,903	266,283
1969-----	41,705,917	75,977	-----	75,977	75,977	-----	75,977	342,260
Total--	-----	342,260	-----	342,260	342,260	-----	342,260	-----
East Columbia Basin Irrigation District:								
1964-----	37,800,000	9,701	-----	9,701	9,701	-----	9,701	9,701
1965-----	71,752,846	57,394	-----	57,394	57,394	-----	57,394	67,095
1966-----	71,752,846	76,646	-----	76,646	76,646	-----	76,646	143,741
1967-----	71,752,846	115,882	-----	115,882	115,882	-----	115,882	259,623
1968-----	71,752,846	122,301	-----	122,301	122,301	-----	122,301	381,924
1969-----	71,752,846	129,119	-----	129,119	129,119	-----	129,119	511,043
Total--	-----	511,043	-----	511,043	511,043	-----	511,043	-----
Quincy- Columbia Basin Irrigation District:								
1964-----	35,512,268	22,559	-----	22,559	22,559	-----	22,559	22,559
1965-----	35,512,268	52,441	-----	52,441	52,441	-----	52,441	75,000
1966-----	35,512,268	123,912	-----	123,912	123,912	-----	123,912	198,912
1967-----	35,512,268	116,234	-----	116,234	116,234	-----	116,234	315,146
1968-----	35,512,268	123,294	-----	123,294	123,294	-----	123,294	438,440
1969-----	35,512,268	161,072	-----	161,072	161,072	-----	161,072	599,512
Total--	-----	599,512	-----	599,512	599,512	-----	599,512	-----
Project total	148,971,031	1,452,815	-----	1,452,815	1,452,815	-----	1,452,815	-----

¹ Includes Districts' share of excess over maximum for three districts due to overlapping contracts

CONSTRUCTION REPAYMENT HISTORY—PART-TIME FARM UNITS

Fiscal year	Total obligation of water users ¹	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1952----	\$36,568	\$3,460	-----	3,460	\$3,257	-----	\$3,257	\$3,257
1953----	52,645	6,544	-----	6,544	6,279	203	6,482	9,739
1954----	80,198	19,886	-----	19,886	19,242	266	19,508	29,247
1955----	82,377	18,216	-----	18,216	18,216	643	18,859	48,106
1956----	82,901	15,110	-----	15,110	14,709	-----	14,709	62,815
1957----	82,721	5,014	-----	5,014	4,785	401	5,186	68,001
1958----	84,400	4,952	-----	4,952	4,498	229	4,727	72,728
1959----	84,400	4,263	-----	4,263	4,065	454	4,519	77,247
1960----	85,060	3,072	-----	3,072	3,010	198	3,208	80,455
1961----	85,060	2,102	-----	2,102	2,102	62	2,164	82,619
1962----	85,060	1,041	-----	1,041	1,041	-----	1,041	83,660
1963----	85,060	648	-----	648	648	-----	648	84,308
1964----	85,060	386	-----	386	386	-----	386	84,694
1965----	85,431	201	-----	201	201	-----	201	84,895
1966----	87,250	1,983	-----	1,983	1,983	-----	1,983	86,878
1967----	87,250	112	-----	112	112	-----	112	86,990
1968----	87,250	112	-----	112	112	-----	112	87,102
1969----	87,250	74	-----	74	74	-----	74	87,176
Project total	-----	87,176	-----	87,176	84,720	2,456	87,176	-----

¹ Includes Districts' share of excess over maximum for three districts due to overlapping contracts.

Plant	Total estimated cost
Grand Coulee Dam and Reservoir	\$162,866,179
Irrigation plant	1,140,527,216
Electric plant:	
Present plant	113,037,605
Third powerplant	470,415,000
Total electric plant	583,452,605
Settlement land program	11,500,000
Minimum basic safety and health	289,000
Transitional development costs	5,314,000
Total	1,903,949,000

The allocation of costs is as follows:

Irrigation	1,202,119,779
Power	653,700,903
Contributions	362,864
Nonreimbursable	47,765,454

It has been determined that the irrigation district water users will pay directly approximately \$144,-102,000, or an average of \$131.60 per irrigable acre, in construction charges. Other sources and amounts scheduled for repayment are included in the following:

Repayment of reimbursable costs:

Power revenues:	
Electric plant investment	\$653,700,979
Irrigation plant investment	1,046,017,703
Subtotal	1,699,718,682
Water users:	
Irrigation water users	144,102,000
Irrigation water users (part-time farm units)	500,000
Self-liquidating land purchase and resale program	11,500,000
Contributions	362,864
Total	1,856,183,546

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1959	\$17,370	\$17,370
1960	36,472	36,472
1961	32,914	32,914
1962	41,843	41,843
1963	259,195	259,195
1964	689,292	689,292
1965	1,105,849	1,105,849
1966	1,540,054	1,540,054
1967	2,017,827	2,017,827
1968	2,435,146	2,435,146
1969	1,829,052	1,829,052
Total	10,005,014	10,005,014

IRRIGATION BLOCKS

Irrigation block	First year of 10-year development period	Irrigable acreage
1	1949	5,790
2	1952	1,319
40	1953	14,782
41	1953	10,793
70	1953	6,109
701	1953	1,457
71	1953	12,717
72	1953	19,786
11	1954	5,425
42	1954	20,882
49	1954	13,296
73	1954	18,903
12	1955	3,719
15	1955	15,799
43	1955	13,356
74	1955	11,004
75	1955	14,139
13	1956	6,746
16	1956	27,377
44	1956	18,523
76	1956	7,151
78	1956	8,043
19	1957	13,251
45	1957	17,872
86	1957	6,764
87	1957	16,936
421	1958	1,456
47	1958	5,371
89	1958	22,246
3	1959	3,303
14	1959	7,753
18	1959	13,074
401	1959	1,340
46	1959	14,751
77	1959	8,952
79	1959	8,037
20	1960	15,188
85	1960	9,295
82	1961	9,691
881	1961	2,358
201	1962	2,104
83	1962	6,917
88	1962	5,882
80	1963	10,863
23	1964	7,592
17	1965	8,436
741	1966	661
81	1966	13,264
161	1967	3,212
21	1968	5,240
48	1968	2,050
0	1969	0
0	1970	0
25	1971	11,675
Subtotal		512,650
Future blocks, ex- cluding East		
High		153,500
East High area		385,500
Deferred lands		43,350
Total		1,095,000

PAYOUT STUDY

INVESTMENT REPAYMENT FROM POWER REVENUES

Fiscal year	Net revenues	Repayment components of net revenues					Interest bearing commercial electric			Interest free aid to irrigation		Net revenues from water users	IRRIGATION REVENUES		RECAPITULATION Net project revenues ^a
		Interest 3 percent and 3 1/2 percent	Principal	In service end of year	Balance to be repaid	Allocated to river regulation	Required aid	Balance to be repaid	Total obligation	Interest free irrigation obligation	Balance to be repaid				
1941-44.....	\$8,041,197	\$4,683,988	\$3,357,289	\$70,665,076	\$67,307,867	\$28,784,677	\$43,798,828		\$8,615,304						\$8,041,197
1945.....	2,821,082	2,019,236	801,846	72,703,739	68,544,684	28,863,561	43,918,858		8,608,997						2,821,082
1946.....	3,811,452	2,056,340	1,755,112	74,646,973	68,732,806	29,418,023	44,759,480		8,634,925						3,811,452
1947.....	4,543,513	2,061,984	2,481,529	75,983,867	67,588,171	30,318,996	44,133,450		9,106,127						4,543,513
1948.....	4,170,561	2,027,645	2,142,910	83,532,290	72,993,678	29,543,018	45,253,042		8,933,136						4,170,561
1949.....	7,184,190	2,189,810	4,994,360	86,978,413	71,445,321	30,968,536	47,231,972		9,319,388						7,184,190
1950.....	7,806,777	2,143,363	5,663,414	119,383,126	98,186,720	31,634,357	50,242,311		9,917,141						7,806,777
1951.....	7,675,870	2,945,602	4,730,268	138,743,421	112,816,748	33,089,503	52,789,435		10,354,554						7,675,870
1952.....	8,283,048	3,384,502	4,898,546	156,091,037	125,266,817	37,333,332	61,336,904		11,817,783						8,283,048
1953.....	8,153,510	3,757,974	4,395,536	157,915,718	121,273,923	37,733,504	61,336,904		11,817,783						8,153,510
1954.....	9,210,953	3,638,188	5,782,765	157,915,718	116,912,197	37,733,504	188,510,004		28,747,648						9,120,953
1955.....	9,717,200	3,507,366	6,209,834	157,915,718	116,912,197	37,733,504	205,688,955		38,278,493						9,717,200
1956.....	9,623,262	3,391,543	6,231,719	165,338,370	111,891,296	37,801,198	220,322,860		40,139,777						9,623,262
1957.....	9,513,102	3,356,799	6,156,303	165,338,370	111,891,296	37,801,198	235,745,682		41,947,061						9,513,102
1958.....	9,263,023	3,182,331	6,052,412	177,454,849	107,698,060	39,399,340	235,745,682		42,161,720						9,263,023
1959.....	9,165,088	3,152,926	6,012,162	189,828,739	105,497,539	17,629,626	254,987,362		35,651,438						9,165,088
1960.....	9,048,191	3,152,926	6,012,162	189,828,739	105,497,539	17,629,626	254,987,362		35,651,438						9,048,191
1961.....	9,841,698	3,358,431	6,489,733	189,828,739	111,432,182	5,050,743	282,540,696		39,536,929						9,841,698
1962.....	21,234,209	1,516,498	22,750,707	174,803,872	99,452,182	5,050,743	282,540,696		10,432						21,234,209
1963.....	5,656,309	1,862,867	3,793,442	174,803,872	99,452,182	5,050,743	282,540,696		9,381						5,656,309
1964.....	7,528,951	1,723,465	5,805,486	174,803,872	99,452,182	5,050,743	282,540,696		125,249						7,528,951
1965.....	5,356,555	1,671,004	3,682,551	174,803,872	99,452,182	5,050,743	282,540,696		125,249						5,356,555
1966.....	9,230,308	1,651,011	7,579,297	171,969,432	37,982,729	0	279,506,500		317,324						9,230,308
1967.....	9,138,951	1,139,482	7,999,469	171,969,432	37,982,729	0	279,506,500		317,324						9,138,951
1968.....	16,217,023	8,899,332	15,317,691	171,969,432	37,982,729	0	279,506,500		317,324						16,217,023
1969.....															
Subtotal.....	221,783,766	64,539,398	157,244,368	171,969,432	114,716,092	0	314,451,000		43,032,799						221,783,766
1970.....	6,246,000	441,483	5,804,517	172,038,731	9,009,816	0	314,451,000		43,032,799						6,246,000
1971.....	1,559,000	270,295	1,288,705	172,038,731	8,000,834	0	314,451,000		43,032,799						1,559,000
1972.....	1,765,000	240,025	1,524,975	174,768,201	9,510,636	0	314,451,000		43,032,799						1,765,000
1973.....	1,900,000	285,319	1,614,681	175,038,886	8,301,640	0	314,451,000		43,032,799						1,900,000
1974.....	13,950,000	11,264,174	2,685,826	175,038,886	362,800,475	0	381,656,000		609,000						13,950,000
1975.....	15,080,000	12,092,484	2,987,516	175,038,886	387,760,726	0	408,205,000		682,000						15,080,000
1976.....	15,080,000	11,829,113	3,250,887	175,038,886	387,760,726	0	408,205,000		682,000						15,080,000
1977.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1978.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1979.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1980.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1981.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1982.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1983.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1984.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1985.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1986.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1987.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1988.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1989.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1990.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1991.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1992.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1993.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1994.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1995.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1996.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1997.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1998.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
1999.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2000.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2001.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2002.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2003.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2004.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000
2005.....	18,180,000	14,358,573	3,821,427	175,038,886	387,760,726	0	408,205,000		682,000						18,180,000

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES						IRRIGATION REVENUES			Net project revenue*		
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric		Allocated to river regulation	Interest free aid to irrigation		Net revenues from water users		Interest free irrigation	
		Interest 3 percent and 3 3/4 percent	Principal	In service end of year	Balance to be repaid		Required aid	Balance to be repaid			Total obligation	Balance to be repaid
2006	18,490,000	9,695,672	8,794,328	649,499,960	401,696,458	0	973,056,000	1,103,616,000	2,359,000	134,015,000	82,617,000	20,849,000
2007	18,400,000	9,420,849	9,069,151	649,499,960	292,627,307	0	987,991,000	1,002,926,000	2,404,000	136,080,000	82,278,000	20,894,000
2008	18,400,000	9,137,438	9,352,562	649,499,960	283,274,745	0	1,002,926,000	1,017,862,000	2,448,000	138,145,000	81,939,000	20,938,000
2009	22,736,000	8,845,171	9,946,829	649,499,960	273,629,916	0	1,017,862,000	1,032,797,000	2,517,000	140,209,000	81,471,000	21,007,000
2010	18,400,000	8,543,770	9,946,230	649,499,960	263,683,686	0	1,032,797,000	1,047,731,000	2,567,000	142,271,000	80,775,000	21,062,000
2011	18,400,000	8,232,950	10,257,050	649,499,960	253,426,631	0	1,046,017,000	1,062,665,000	2,617,000	144,333,000	79,638,000	21,127,000
2012	19,035,703	7,912,417	10,577,583	649,499,960	242,819,011	0	1,060,017,000	1,077,599,000	2,658,000	146,395,000	78,500,000	21,192,000
2013	54,506,000	7,581,870	10,908,130	649,499,960	231,940,921	0	1,076,017,000	1,092,531,000	2,467,000	148,457,000	77,363,000	21,257,000
2014	56,352,000	7,240,989	11,249,011	649,499,960	220,691,912	0	1,091,017,000	1,107,463,000	2,321,000	150,519,000	76,218,000	21,322,000
2015	54,828,000	6,889,457	11,600,543	649,499,960	209,091,369	0	1,106,017,000	1,122,395,000	2,164,000	152,581,000	75,070,000	21,387,000
2016	65,091,000	6,526,940	11,963,066	649,499,960	197,128,309	0	1,121,017,000	1,137,327,000	1,985,000	154,643,000	73,922,000	21,452,000
2017	36,782,000	6,153,095	12,322,434	649,499,960	184,791,404	0	1,136,017,000	1,152,259,000	1,835,000	156,705,000	72,774,000	21,517,000
2018	36,782,000	5,767,566	12,682,000	649,499,960	172,068,970	0	1,151,017,000	1,167,191,000	1,785,000	158,767,000	71,626,000	21,582,000
2019	37,159,000	5,369,990	13,040,010	649,499,960	158,948,960	0	1,166,017,000	1,182,123,000	1,777,000	160,829,000	70,478,000	21,647,000
2020	28,236,000	4,959,990	13,396,010	649,499,960	145,418,950	0	1,181,017,000	1,197,055,000	1,692,000	162,891,000	69,330,000	21,712,000
2021	28,236,000	4,537,177	13,752,823	649,499,960	131,466,127	0	1,196,017,000	1,211,987,000	1,602,000	164,953,000	68,182,000	21,777,000
2022	29,195,000	4,101,151	14,108,849	649,499,960	117,077,278	0	1,211,017,000	1,226,919,000	1,617,000	167,015,000	67,034,000	21,842,000
2023	24,636,000	3,654,117	14,465,883	649,499,960	102,241,395	0	1,226,017,000	1,241,851,000	1,604,000	169,077,000	65,886,000	21,907,000
2024	24,870,000	3,190,496	15,209,504	649,499,960	86,941,891	0	1,241,017,000	1,256,783,000	1,603,000	171,139,000	64,738,000	21,972,000
2025	25,376,000	2,712,387	15,777,613	649,499,960	71,164,278	0	1,256,017,000	1,271,715,000	1,629,000	173,201,000	63,590,000	22,037,000
2026	31,240,000	2,219,336	16,270,664	649,499,960	54,893,614	0	1,271,017,000	1,286,647,000	1,621,000	175,263,000	62,442,000	22,102,000
2027	20,766,000	1,710,878	16,770,122	649,499,960	38,111,922	0	1,286,017,000	1,301,579,000	1,615,000	177,325,000	61,294,000	22,167,000
2028	31,218,000	1,186,530	17,303,470	649,499,960	20,811,492	0	1,301,017,000	1,316,511,000	1,605,000	179,387,000	60,146,000	22,232,000
2029	17,818,819	645,797	17,173,022	649,499,960	3,638,000	0	1,316,017,000	1,331,443,000	1,602,000	181,449,000	59,000,000	22,297,000
2030	10,460,140	109,140	1,819,000	649,499,960	1,819,000	0	1,331,017,000	1,346,375,000	1,602,000	183,511,000	57,852,000	22,362,000
2031	54,570	54,570	54,570	649,499,960	1,819,000	0	1,346,017,000	1,361,307,000	1,602,000	185,573,000	56,704,000	22,427,000
2032	54,570	54,570	54,570	649,499,960	1,819,000	0	1,361,017,000	1,376,239,000	1,602,000	187,635,000	55,556,000	22,492,000
2033	54,570	54,570	54,570	649,499,960	1,819,000	0	1,376,017,000	1,391,171,000	1,602,000	189,697,000	54,408,000	22,557,000
2034	7,860,570	54,570	54,570	649,499,960	1,819,000	0	1,391,017,000	1,406,103,000	1,602,000	191,759,000	53,260,000	22,622,000
2035	10,542,570	54,570	54,570	649,499,960	1,819,000	0	1,406,017,000	1,421,035,000	1,602,000	193,821,000	52,112,000	22,687,000
2036	8,996,570	54,570	54,570	649,499,960	1,819,000	0	1,421,017,000	1,435,967,000	1,602,000	195,883,000	50,964,000	22,752,000
2037	8,996,000	54,570	54,570	649,499,960	1,819,000	0	1,435,967,000	1,450,899,000	1,602,000	197,945,000	49,816,000	22,817,000
2038	6,745,000	54,570	54,570	649,499,960	1,819,000	0	1,450,899,000	1,465,831,000	1,602,000	199,999,000	48,668,000	22,882,000
2039	12,537,000	54,570	54,570	649,499,960	1,819,000	0	1,465,831,000	1,480,763,000	1,602,000	202,053,000	47,520,000	22,947,000
2040	24,342,000	54,570	54,570	649,499,960	1,819,000	0	1,480,763,000	1,495,695,000	1,602,000	204,107,000	46,372,000	23,012,000
2041	28,597,000	54,570	54,570	649,499,960	1,819,000	0	1,495,695,000	1,510,627,000	1,602,000	206,159,000	45,224,000	23,077,000
2042	22,903,000	54,570	54,570	649,499,960	1,819,000	0	1,510,627,000	1,525,559,000	1,602,000	208,211,000	44,076,000	23,142,000
2043	17,343,000	54,570	54,570	649,499,960	1,819,000	0	1,525,559,000	1,540,491,000	1,602,000	210,263,000	42,928,000	23,207,000
2044	15,346,000	54,570	54,570	649,499,960	1,819,000	0	1,540,491,000	1,555,423,000	1,602,000	212,315,000	41,780,000	23,272,000
2045	11,296,000	54,570	54,570	649,499,960	1,819,000	0	1,555,423,000	1,570,355,000	1,602,000	214,367,000	40,632,000	23,337,000
2046	23,065,000	54,570	54,570	649,499,960	1,819,000	0	1,570,355,000	1,585,287,000	1,602,000	216,419,000	39,484,000	23,402,000
2047	26,632,000	54,570	54,570	649,499,960	1,819,000	0	1,585,287,000	1,600,219,000	1,602,000	218,471,000	38,336,000	23,467,000
2048	6,619,000	54,570	54,570	649,499,960	1,819,000	0	1,600,219,000	1,615,151,000	1,602,000	220,523,000	37,188,000	23,532,000
2049	25,551,000	54,570	54,570	649,499,960	1,819,000	0	1,615,151,000	1,630,083,000	1,602,000	222,575,000	36,040,000	23,597,000
2050	18,137,000	54,570	54,570	649,499,960	1,819,000	0	1,630,083,000	1,645,015,000	1,602,000	224,627,000	34,892,000	23,662,000
2051	7,149,000	54,570	54,570	649,499,960	1,819,000	0	1,645,015,000	1,659,947,000	1,602,000	226,679,000	33,744,000	23,727,000
2052	21,147,000	54,570	54,570	649,499,960	1,819,000	0	1,659,947,000	1,674,879,000	1,602,000	228,731,000	32,596,000	23,792,000
2053	27,934,000	54,570	54,570	649,499,960	1,819,000	0	1,674,879,000	1,689,811,000	1,602,000	230,783,000	31,448,000	23,857,000
2054	31,376,000	54,570	54,570	649,499,960	1,819,000	0	1,689,811,000	1,704,743,000	1,602,000	232,835,000	30,300,000	23,922,000
2055	14,298,000	54,570	54,570	649,499,960	1,819,000	0	1,704,743,000	1,719,675,000	1,602,000	234,887,000	29,152,000	23,987,000
2056	15,357,000	54,570	54,570	649,499,960	1,819,000	0	1,719,675,000	1,734,607,000	1,602,000	236,939,000	28,004,000	24,052,000
2057	21,712,000	54,570	54,570	649,499,960	1,819,000	0	1,734,607,000	1,749,539,000	1,602,000	238,991,000	26,856,000	24,117,000
2058	21,712,000	54,570	54,570	649,499,960	1,819,000	0	1,749,539,000	1,764,471,000	1,602,000	241,043,000	25,708,000	24,182,000
2059	19,594,000	54,570	54,570	649,499,960	1,819,000	0	1,764,471,000	1,779,403,000	1,602,000	243,095,000	24,560,000	24,247,000
2060	27,802,000	54,570	54,570	649,499,960	1,819,000	0	1,779,403,000	1,794,335,000	1,602,000	245,147,000	23,412,000	24,312,000
2061	18,667,000	54,570	54,570	649,499,960	1,819,000	0	1,794,335,000	1,809,267,000	1,602,000	247,199,000	22,264,000	24,377,000

CRESCENT LAKE DAM PROJECT

OREGON

Reconstruction of Crescent Lake Dam and appurtenant outlet works to Crescent Lake, in Deschutes County, Oreg., was authorized by the 1955 Interior Department Appropriation Act (68 Stat. 361) on July 1, 1954.

The project works replaced under this program consist of a dam and appurtenant works with intake openings screened for protection of fish. These works provide the project with a reservoir storage capacity of 86,000 acre-feet which, when added to other existing water supplies, insures a dependable total supply to about 6,650 irrigable acres in the Tumalo Irrigation District (formerly the Deschutes County Municipal Improvement District), which was originally organized as a State project under the Carey Act in 1902. Since accomplishment of the above work, the land area irrigated has changed very little. In 1969, the irrigable area for service was 7,290 acres and the irrigated area 6,929 acres. Gross value of crops produced on these lands for that same year was \$384,003, and the average value per irrigated acre was \$55.42.

Repayment contract.—The total project cost is \$328,098, of which \$320,000 is now covered by a repayment contract. Costs in excess of contract coverage were occasioned by settlement of the contractor's claim for additional compensation in the amount of \$8,163. Repayment arrangements for that portion of the project costs not covered by the existing repayment contract are yet to be negotiated with District representatives.

Supplemental repayment contract, dated September 28, 1967, amends contract of September 20, 1954, to defer construction charge installments totaling \$22,000,

due \$8,000 each in fiscal years 1968 and 1969, and \$6,000 in fiscal year 1970. The total deferment of \$22,000 will be repaid in equal annual installments, beginning December 31, 1970, over the 28 years remaining in the repayment period.

Tumalo Irrigation District operates and maintains the entire project works.

PUBLIC NOTICE AND CONTRACTS

1954, September 20: Contract 14-06-100-566 with the Deschutes County Municipal Improvement District to pay to the United States the actual cost of reconstruction in an amount not to exceed \$320,000. Irrigable acreage on date of contract was 6,650 acres.

1957, November 22: Estimated cost notice in amount of \$320,000 issued to District by Regional Director's office.

1967, September 28: Contract 14-06-100-6057 with Tumalo Irrigation District to defer total of \$22,000 due in fiscal years 1968, 1969, and 1970, to be repaid in 28 years beginning December 31, 1970.

Payout schedule.—The District is to repay its construction charge obligation in 40 equal annual installments, the first payment being due on December 31, 1958. However, should the District so desire, the annual installments may be paid in two equal amounts, one to be paid on or before December 31 of the year in which the payment accrues, and one to be paid on June 30 of the following year.

Summary of status of repayment contract:

Total value of contracted repayment	\$320,000
Total matured charges	72,000
Total matured charges repaid	72,000
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1959-----	\$320,000	\$8,000	-----	\$8,000	\$8,000	-----	\$8,000	\$8,000
1960-----	320,000	8,000	-----	8,000	4,000	-----	4,000	12,000
1961-----	320,000	8,000	-----	8,000	8,000	\$4,000	12,000	24,000
1962-----	320,000	8,000	-----	8,000	8,000	-----	8,000	32,000
1963-----	320,000	8,000	-----	8,000	8,000	-----	8,000	40,000
1964-----	320,000	8,000	-----	8,000	8,000	-----	8,000	48,000
1965-----	320,000	8,000	-----	8,000	8,000	-----	8,000	56,000
1966-----	320,000	8,000	-----	8,000	8,000	-----	8,000	64,000
1967-----	320,000	8,000	-----	8,000	8,000	-----	8,000	72,000
1968-----	320,000	¹ -----	-----	-----	-----	-----	-----	72,000
1969-----	320,000	¹ -----	-----	-----	-----	-----	-----	72,000
Total--	-----	72,000	-----	72,000	68,000	4,000	72,000	-----

¹ Installments deferred and to be repaid in remaining 28 years of repayment period, beginning Dec. 31, 1970.

CROOKED RIVER PROJECT

OREGON

The Crooked River project was authorized by the act of August 6, 1956 (70 Stat. 1058), which also provided for the integration as a part of the Crooked River project the then-existing Ochoco Dam and Reservoir and the Government-owned generator in the Cove Powerplant of the Pacific Power & Light Co. On September 14, 1959, this act was amended (73 Stat. 554) to increase the capacity of certain project features for future irrigation of additional lands. As a first step in utilizing extra capacity in Prineville Reservoir, which was built to provide additional water supplies to lands in the Central Deschutes Basin, the Crooked River project extension was authorized by the act of September 18, 1964 (78 Stat. 954). The purpose of the project, which is located in Crook County of central Oregon, is to provide water to 19,090 irrigable acres lying within the Ochoco Irrigation District and certain other nondistrict lands included in the project.

Prior to the authorization of the Crooked River project, the Ochoco project was established for the primary purpose of providing emergency rehabilitation of Ochoco Dam as authorized in the Interior Department Appropriation Act of 1949 (act of June 29, 1948, 62 Stat. 1127). The dam, with a capacity of 47,500 acre-feet, was built by the Ochoco Irrigation District immediately after World War I as a part of a veterans' farm-settlement program undertaken by the State of Oregon. The original plan was to furnish water for 22,500 acres of land; however, due to an inadequate water supply, the irrigable area was reduced to 14,000 acres. In 1935, the area was further reduced to 8,500 acres. Ochoco Dam was reconstructed and repaired in 1949 and 1950 at a cost of \$846,271. Of this amount, \$346,271 was allocated to flood control and the remainder of \$500,000 was to be repaid by the District.

In 1969, the District's irrigable acreage for service was 18,530 acres and the irrigated area was 16,809 acres. The gross crop value in 1969 was \$1,678,144 and the average value per irrigated acre was \$99.84.

The principal features of the Crooked River project consist of Prineville Dam and Reservoir, with a storage capacity of about 155,000 acre-feet; Crooked River diversion dam and canal below the reservoir; Barnes Butte and Ochoco relift pumping plants; a distribution canal; and laterals and drainage works. The foregoing works are designed to be used in conjunction with the Ochoco Dam and Reservoir and related facilities. Those works associated with the Crooked River Extension primarily consist of six small pumping plants, 22 miles of canals, one mile of open laterals, 4,600 feet of closed pipe laterals, and 1.5 miles of constructed drains. All of these facilities are operated in conjunction with those of the main Crooked River project and are a part of the Ochoco Irrigation District.

Power for irrigation pumping was at one time furnished to the district from a Government-owned generator in the Cove Powerplant of the Pacific Power & Light Co. The cost of constructing that unit was \$447,367. Prior to the time that the power was needed for irrigation pumping (1961), the energy generated during the irrigation season was sold to Pacific Power & Light Co. at a rate of two mills per kilowatt hour. During 1946-60, the Bureau recovered \$229,111. The remaining unpaid costs of \$218,256 are being recovered through a pumping power rate of one mill per kilowatt hour being charged to the Ochoco Irrigation District and Crook County Improvement District No. 1. It is anticipated that the remaining costs will be recovered within a 50-year period at the one-mill rate.

The Cove Powerplant, including the Government-owned generator, discontinued producing power as a result of construction of Round Butte Dam and generating facilities by Portland General Electric Co. which inundated the Cove generating facility. Under terms of an agreement (contract No. 14-06-100-2173) dated June 2, 1961, among the United States, Pacific Power & Light Co., and Portland General Electric Co., equivalent power for irrigation purposes is being gen-

erated or procured by the Portland General Electric Co. and transmitted by the Pacific Power & Light Co. to the United States in lieu of power available to the United States from the Cove Powerplant. The furnishing and transmitting of power to Pacific substation at Redmond, Oreg., is without charge to the United States. The District assumes the wheeling cost from Redmond to its pumping plants. Irrigation pumping power to supplement that available under current agreement from the Cove facility has been reserved for the Crooked River project, including the extension, from the Federal Columbia River power system. The rate for this supplemental power has been established at 1.25 mills per kilowatt hour.

The total estimated cost of the Crooked River project, including the Extension, is \$10,759,803. Reimbursable costs are all allocated to irrigation.

The cost and repayment allocations are as follows:

Cost:	
Prineville Dam and Reservoir	\$5,045,089
Irrigation plant	4,014,675
Cove Powerplant	438,861
Other	362,930
Corollary construction cost	898,248
Total cost	10,759,803
Repayment:	
Repayment realized:	
Repayment contracts matured	37,596
Contribution and other income	273,882
Subtotal	311,478
Anticipated future repayment:	
Repayment contracts unmatured	2,540,477
Future repayment contracts	1,482,827
Income from power revenues	4,247,092
Subtotal	8,270,396
Total repayment	8,581,874
Nonreimbursable construction costs:	
Flood control	1,674,271
Fish and wildlife	480,400
Recreation	23,258
Total repayments and other credits	10,759,803

Repayment contracts.—The repayment contract with the Ochoco Irrigation District, dated April 24, 1950, provided for repayment to the United States of a reconstruction and repair cost obligation of \$500,000 for Ochoco Dam, with annual installments of \$12,750 to be adjusted by the normal and percentage variable repayment plan. Repayment was planned to begin after liquidation of an outstanding bond obligation (\$243,500), but not later than 1968.

The Ochoco Irrigation District executed a contract with the Government on April 2, 1958, which supercedes the reconstruction contract of April 24, 1950. The 1958 contract provides for repayment of \$1,311,400 for Crooked River project costs, together with \$500,000 as stipulated in the 1950 reconstruction contract, within a 50-year period.

A supplemental repayment contract dated September 7, 1962, was entered into with the Ochoco Irrigation District for the purpose of authorizing the transfer of operation and maintenance of Prineville Dam and Reservoir and related facilities to the District.

Under the Crooked River Extension, the Ochoco Irrigation District by amendatory repayment contract dated May 19, 1966, agreed to pay \$347,000 in 50 years towards the facilities required to serve 2,890 irrigable acres. On August 1, 1968, a second amendatory repayment contract was signed in connection with the Extension area that increased the obligation by \$67,200 to \$414,200 and added an additional 560 irrigable acres. This brought the Extension area to a total of 3,450 acres.

Pursuant to the May 19, 1966, contract, the development period for the regular Crooked River project lands was extended from 3 to 7 years and a 7-year development period was also approved for the Extension lands. Accordingly, the development period for regular project lands will end December 31, 1969, with the first annual construction installment in the amount of \$36,228 coming due December 31, 1970. The Extension area development period began January 1, 1968, and will end December 31, 1974. The first annual installment of \$8,284 will be due December 31, 1975. If the District so elects, the basic annual installments may be adjusted by a variable repayment plan that includes normal and percentage and adjusted parity ratio factors. The adjusted annual payments will be due and payable one-half on April 30, and one-half on the succeeding July 15 of the year following, rather than on the preceding December 31. Payout of the District's obligation is scheduled to be completed in 2019 for regular project lands and 2024 for the Extension lands.

In addition, 13 repayment contracts have been executed with nondistrict water users for purchase of 10,682 acre-feet of storage capacity in the Prineville Reservoir at a price of \$352,473, payable in 50 annual installments beginning in 1963. It is anticipated that additional contracts will be entered into by other water users to cover the total amount of \$359,600 allocated to nondistrict water users.

CONTRACTS

- 1950, April 24: Contract 11r-1569 with Ochoco Irrigation District to repay \$500,000 of total cost. Base installment of \$12,750 subject to application of normal and percentage repayment plan. Semiannual installments due March 1 and September 1. Repayment to be completed in 2007. Irrigable acreage at time of contract was 8,500 acres.
- 1958, April 2: Contract 14-06-100-1436 with Ochoco Irrigation District to construct Prineville Dam and Reservoir and related works. Contract assumes \$500,000 obligation of Ochoco Dam, together with \$1,311,400 of reimbursable Crooked River project costs. Payable in 50 annual installments due and payable on December 31. If annual installments adjusted, payments due one-half on April 30 and one-half on the succeeding July 15. Repayment to be completed in 2015. Project irrigable acreage at date of contract was 20,410 acres; of this total, 15,640 acres lying within Ochoco Irrigation District and balance of 4,770 in nondistrict lands.
- 1966, May 19: Contract 14-06-100-5514 with Ochoco Irrigation District to repay \$347,000 of cost associated with Crooked River Extension. Payable in 50 annual installments with each installment due and payable on December 31, beginning in 1975. Crooked River Extension facilities serve an estimated additional 2,890 acres of irrigable land.

1967, November 8: Announcement of 7-year development period, beginning January 1, 1968, for Crooked River Extension lands.

1968, August 1: Contract 14-06-100-6321 with Ochoco Irrigation District to repay an additional \$67,200 of cost associated with Crooked River Extension for a total of \$414,200, to be repaid under the terms of contract 14-06-100-5514, dated May 19, 1966. This additional obligation of \$67,200 covers an additional 560 irrigable acres of land.

Thirteen nondistrict contracts for water stored in Prineville Reservoir, to be paid in 50 equal annual installments, beginning 9 in 1963, 3 in 1966, and 1 in 1970. All nondistrict contracts for Prineville Reservoir storage have the same due dates on December 31 of each year for construction charges. Prineville Reservoir is operated by the Ochoco Irrigation District; therefore, the nondistrict contractors pay O&M charges to that District.

Summary of status of repayment contracts:

Total value of contracted repayment	\$2,578,073
Total matured charges	37,596
Total matured charges repaid	37,596
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1964-----	\$2,094,177	\$5,517	-----	\$5,517	\$5,517	-----	\$5,517	\$5,517
1965-----	2,094,177	5,656	-----	5,656	5,656	-----	5,656	11,173
1966-----	2,504,537	5,656	-----	5,656	5,517	-----	5,517	16,690
1967-----	2,504,537	6,923	-----	6,923	7,061	-----	7,061	23,751
1968-----	2,504,537	6,922	-----	6,922	6,897	-----	6,897	30,648
1969-----	2,578,073	6,922	-----	6,922	6,948	-----	6,948	37,596
Total--	-----	37,596	-----	37,596	37,596	-----	37,596	-----

DALTON GARDENS PROJECT

IDAHO

Rehabilitation of project works on the Dalton Gardens project in Kootenai County, Idaho, was authorized on July 31, 1953, by the Interior Department Appropriations Act (67 Stat. 261, 266).

The purpose of the rehabilitation program was to provide the project with an adequate water supply at sufficient pressure for sprinkler irrigation of 944 acres, comprised principally of part-time farm and suburban residence units. In 1969, the irrigable area for service was 979 acres and the irrigated area was 697 acres. The gross crop value and the average value per irrigated acre for this same year were \$52,918 and \$75.92, respectively.

The project features include two centrifugal pumps having a capacity of 3,000 gallons per minute each, 800 feet of steel intake pipe, a steel storage tank with 150,000-gallon capacity, approximately 3,400 feet of main discharge line, approximately 2,950 feet of steel supply lines, and a distribution system of about 11 miles of steel pipe.

Actual costs of rehabilitating the project works were \$258,660, all of which is allocated to irrigation and is reimbursable.

As a result of accelerated corrosion and deterioration of pipelines constructed under the 1953 rehabilitation program, additional construction work consisting of lining, replacing and improving these works was authorized by Public Law 87-289 (75 Stat. 588) dated September 22, 1961. In addition, some replacement of turnouts and installation of additional shutoff valves as requested by the District were accomplished. The cost of this work was \$305,047. The total project cost of \$563,707 is reimbursable and allocated to irrigation.

The Dalton Gardens Irrigation District operates the project works.

Repayment contracts.—The Dalton Gardens Irrigation District signed a repayment contract dated April 26, 1954, to pay to the United States the actual cost of the repair and rehabilitation of their project works

in an amount not to exceed \$270,200. This amount includes \$2,200 for actual costs of past surveys and investigations, and is established as a part of the District's construction charge obligation.

A 2-year development period was fixed, starting January 1, 1956. The first annual construction installment was due December 31, 1958, with repayment to be completed in 40 years.

Repayment contract 14-06-100-2394, dated March 21, 1962, with the District provided for repayment of a maximum of \$97,739 out of the \$371,000 estimated cost of the replacement and improvement program. Final cost notice was issued on February 5, 1965. Remainder of the cost will be paid from power revenues.

CONTRACTS AND NOTICES

- 1954, April 26: Contract 14-06-100-417 with the Dalton Gardens Irrigation District to repay \$270,200, the estimated cost of rehabilitating project facilities, in 40 equal installments. Installments are due December 31, or at option of District may be paid one-half on December 31 and one-half on following June 30.
- 1957, December 2: Notice from Regional Director to District announcing actual cost at \$258,660, to be repaid in 40 annual installments.
- 1962, March 21: Contract 14-06-100-2394 with Dalton Gardens Irrigation District for pipe replacement and additional work, payable in 40 annual installments beginning December 31, 1964 (\$97,739). Installments due on same dates as 1954 contract.
- 1965, February 5: Notice from Acting Regional Director announcing actual costs under contract of March 21, 1962. Discharge and lateral system cost was \$290,332 and additional District facilities cost was \$14,715. The District will repay \$82,739.37 of the discharge and lateral system cost and all of the additional District facilities cost.

Summary of status of repayment contract:

Total value of contracted repayment	\$356,114
Total matured charges	78,470
Total matured charges repaid	78,470
Total matured charges unpaid	0

Cost and repayment allocations:

		Deferred maintenance, rehabilitation and betterment	41,832
		Repayment from irrigation water users	356,114
		Repayment from power revenues	207,593
Total project cost allocated to irrigation	\$563,707		
Irrigation plant	521,875	Total repayment	563,707

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1959	\$258,660	\$6,467		\$6,467	\$6,467		\$6,467	\$6,467
1960	258,660	6,466		6,466	6,466		6,466	12,933
1961	258,660	6,467		6,467	6,467		6,467	19,400
1962	356,399	6,466		6,466	6,466		6,466	25,866
1963	356,399	6,467		6,467	6,467		6,467	32,333
1964	356,399	6,466		6,466	6,466		6,466	38,799
1965	¹ 356,114	7,940		7,940	7,940		7,940	46,739
1966	356,114	7,933		7,933	7,933		7,933	54,672
1967	356,114	7,933		7,933	7,933		7,933	62,605
1968	356,114	7,933		7,933	7,933		7,933	70,538
1969	356,114	7,932		7,932	7,932		7,932	78,470
Total		78,470		78,470	78,470		78,470	

¹ Reduced to actual repayable obligation.

DESCHUTES PROJECT

OREGON

A finding of feasibility for the Deschutes project was signed by the Secretary of the Interior on September 24, 1937, and approved by the President on November 1, 1937. Construction of Haystack Dam and Equalizing Reservoir was authorized by act of Congress on August 10, 1954 (68 Stat. 679).

The primary purpose of the project is to provide storage and distribution facilities for 50,000 acres of new land in the North Unit Irrigation District in Jefferson County and to furnish supplemental water to about 52,000 acres in established irrigation districts. In 1969, the irrigable area for service and the irrigated area for the North Unit Irrigation District were 50,000 and 46,107 acres, respectively. The average value per irrigated acre was \$179.80. For the Central Oregon Irrigation District and Crook County Improvement District No. 1, which receive supplemental water, the total irrigable area for service and the irrigated area were 48,990 acres and 45,110 acres, respectively, during 1969. The average value per irrigated acre was \$74.87.

The Arnold Irrigation District, which also receives supplemental water from the project works, is reported as a separate entity under the Arnold project.

Principal features include the Wickiup Dam and Reservoir in Deschutes County, North Unit Main Canal, Haystack Equalizing Reservoir, and lateral system. In connection with the construction of the project, it was necessary to reconstruct the Crane Prairie Reservoir in Deschutes County.

The North Unit Irrigation District has constructed a 9-unit pumping plant on the Crooked River, at an estimated cost of \$651,000, that pumps water into the North Unit Main Canal. These pump units, including certain replacement equipment, were furnished by the United States at a cost of \$37,430. They were obtained by the Bureau of Reclamation as surplus property from the Atomic Energy Commission at Hanford, Wash.

The total project cost is \$13,199,032. The entire

amount is reimbursable except for value of work performed by the Civilian Conservation Corps, Civilian Public Service, and Selective Service System. This work amounts to \$1,617,758.

North Unit facilities have been operated and maintained by the North Unit Irrigation District since January 1, 1955.

Repayment contracts.—An amendatory contract, approved by act of August 10, 1954 (68 Stat. 679), has been entered into with the North Unit Irrigation District to pay the reimbursable construction costs of the North unit up to \$12,130,000. Repayment is scheduled over a 78-year period, commencing in 1957. The Central Oregon Irrigation District agreed to pay in 78 semiannual installments the cost of reconstruction of Crane Prairie Reservoir, commencing in 1943. The actual cost of reconstruction, totaling \$181,992¹ was completely repaid some 21 years ahead of schedule, with the final payment on the obligation being made in 1960.

The Arnold Irrigation District and Crook County Improvement District No. 1, by interdistrict agreement, repaid Central Oregon Irrigation District 27 percent and 21 percent, respectively, of the Crane Prairie Reservoir reconstruction costs.

The Pacific Power & Light Co. agreed to pay \$67,939 for work performed by the Bureau in improving its facilities. Payments began in 1942 and were to be completed in 1985. By provisions of a contract dated June 2, 1961, the total remaining outstanding obligation was repaid in full in 1962, or some 23 years ahead of the original payout schedule. This cost has been removed from the Government accounts inasmuch as title to the facilities was transferred to Pacific Power & Light Co. upon completion of payout.

The city of Culver made a lump sum payment of \$876. The city of Madras will repay \$24,000 in 40

¹ \$390.17 receipts from rental of boat docks and residences at Crane Prairie Reservoir, not included in repayment contract.

annual installments. Payments began in 1955 and will be completed in 1994.

PUBLIC NOTICE AND CONTRACTS

1938, January 4: Contract with North Unit Irrigation District (formerly Jefferson Water Conservancy District) for construction of North unit of project at estimated cost of

\$8,000,000, payable in 78 equal semiannual installments. Secretary may provide for smaller payments during early years and larger installments in later years.

1939, August 5: Contract 11r-1143 with Central Oregon Irrigation District for reconstruction of Crane Prairie Reservoir at estimated cost of \$400,000, payable in 78 equal semiannual installments.

1939, November 21: Contract 11r-1169 with Pacific Power & Light Co. for \$67,939, payable in 40 equal annual installments.

1945, September 5: Contract with North Unit Irrigation District. Increased maximum obligation of the District to \$9,500,000.

1949, October 26: Contract with North Unit Irrigation District. Increased maximum obligation of the District to \$11,050,000, to be repaid in 40 years.

1952, May 6: City of Culver, contract 174r-1756 for \$876.06.

1954, February 13: Contract 14-06-W-71 with North Unit Irrigation District. Increased maximum obligation of the District to \$12,130,000, to be repaid in approximately 78 years. Annual installments began in 1957 and will be varied by the "normal and percentage" plan plus parity. Installments due one-half on April 15 and one-half on June 30. Irrigable area on date of contract was 49,817.75 acres.

1954, April 8: City of Madras, contract 14-06-100-357 for \$24,000.

1959, May 21: Final cost notice for Crane Prairie Reservoir issued to Central Oregon Irrigation District by regional director. Actual cost of \$181,992 was fully repaid by 1960.

1961, June 2: Contract 14-06-100-2173 with Pacific Power & Light Co., and Portland General Electric Co. provided for final lump sum payment on \$67,939 of transmission facilities by Pacific Power & Light Co. in 1962.

Allocation of costs:

Irrigation plant	\$12,979,307
Property transfers	151,786
Powerplant paid and transferred to Pacific Power & Light	67,939

Total project cost 13,199,032

Reimbursable:

Irrigation water users	12,311,602
City and county water users	24,876
Power	67,939
Contributions	274,929
Other sources	106,777

Nonreimbursable (S.S.S., C.C.C., and C.P.S. work) 1,617,758

Total 14,403,881

Surplus 1,204,849

Summary of status of repayment contracts:

Total value of contracted repayment	\$12,336,478
Total matured charges	1,510,669
Total matured charges repaid	1,510,669
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—CENTRAL OREGON IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1939	\$400,000							
1940	400,000							
1941	400,000							
1942	400,000							
1943	400,000	\$10,256		\$10,256	\$10,256		\$10,256	\$10,256
1944	400,000	10,257		10,257	10,257		10,257	20,513
1945	400,000	10,256		10,256	10,256		10,256	30,769
1946	400,000	10,257		10,257	10,257		10,257	41,026
1947	400,000	10,256		10,256	10,256		10,256	51,282
1948	400,000	10,256		10,256	10,256		10,256	61,538
1949	400,000	10,257		10,257	10,257		10,257	71,795
1950	400,000	10,256		10,256	10,256		10,256	82,051
1951	400,000	10,257		10,257	10,257		10,257	92,308
1952	400,000	10,256		10,256	10,256		10,256	102,564
1953	400,000	10,256		10,256	10,256		10,256	112,820
1954	400,000	10,257		10,257	10,257		10,257	123,077
1955	400,000	10,256		10,256	10,256		10,256	133,333
1956	400,000	10,257		10,257	10,257		10,257	143,590
1957	400,000	10,256		10,256	10,256		10,256	153,846
1958	400,000	10,257		10,257	10,257		10,257	164,103
1959	¹ 181,602	10,256		10,256	10,256		10,256	174,359
1960	181,602	7,243		7,243	7,243		7,243	181,602
Total		181,602		181,602	181,602		181,602	

¹ Obligation reduced to actual cost.

CONSTRUCTION REPAYMENT HISTORY—PACIFIC POWER & LIGHT CO.

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1941	\$23,760							
1942	23,760	\$594		\$594	\$594		\$594	\$594
1943	23,760	594		594	594		594	1,188
1944	23,760	594		594	594		594	1,782
1945	23,760	594		594	594		594	2,376
1946	23,760	594		594	594		594	2,970
1947	39,362	1,374		1,374	1,374		1,374	4,344
1948	67,939	1,785		1,785	1,785		1,785	6,129
1949	67,939	1,699		1,699	1,699		1,699	7,828
1950	67,939	1,698		1,698	1,698		1,698	9,526
1951	67,939	1,699		1,699	1,699		1,699	11,225
1952	67,939	1,698		1,698	1,698		1,698	12,923
1953	67,939	1,698		1,698	1,698		1,698	14,621
1954	67,939	1,699		1,699	1,699		1,699	16,320
1955	67,939	1,698		1,698	1,698		1,698	18,018
1956	67,939	1,699		1,699	1,699		1,699	19,717
1957	67,939	1,698		1,698	1,698		1,698	21,415
1958	67,939	1,699		1,699	1,699		1,699	23,114
1959	67,939	1,698		1,698	1,698		1,698	24,812
1960	67,939	1,699		1,699	1,699		1,699	26,511
1961	67,939	1,698		1,698	1,698		1,698	28,209
1962	67,939	39,730		39,730	39,730		39,730	67,939
Total		67,939		67,939	67,939		67,939	

CONSTRUCTION REPAYMENT HISTORY—NORTH UNIT IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1957-----	\$12,130,000	\$58,914	-----	\$58,914	\$58,914	-----	\$58,914	\$58,914
1958-----	12,130,000	38,056	-----	38,056	38,056	-----	38,056	96,970
1959-----	12,130,000	27,518	-----	27,518	27,518	-----	27,518	124,488
1960-----	12,130,000	120,120	-----	120,120	120,120	-----	120,120	244,608
1961-----	12,130,000	152,880	-----	152,880	152,880	-----	152,880	397,488
1962-----	12,130,000	65,520	-----	65,520	65,520	-----	65,520	463,008
1963-----	12,130,000	77,641	-----	77,641	77,641	-----	77,641	540,649
1964-----	12,130,000	115,616	-----	115,616	115,616	-----	115,616	656,265
1965-----	12,130,000	194,512	-----	194,512	194,512	-----	194,512	850,777
1966-----	12,130,000	111,411	-----	111,411	111,411	-----	111,411	962,188
1967-----	12,130,000	139,776	-----	139,776	139,776	-----	139,776	1,101,964
1968-----	12,130,000	111,603	-----	111,603	111,603	-----	111,603	1,213,567
1969-----	12,130,000	105,624	-----	105,624	105,624	-----	105,624	1,319,191
Total--	-----	1,319,191	-----	1,319,191	1,319,191	-----	1,319,191	-----

CONSTRUCTION REPAYMENT HISTORY—CITY OF MADRAS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955-----	\$24,000	\$600	-----	\$600	\$600	-----	\$600	\$600
1956-----	24,000	600	-----	600	600	-----	600	1,200
1957-----	24,000	600	-----	600	600	-----	600	1,800
1958-----	24,000	600	-----	600	600	-----	600	2,400
1959-----	24,000	600	-----	600	600	-----	600	3,000
1960-----	24,000	600	-----	600	600	-----	600	3,600
1961-----	24,000	600	-----	600	600	-----	600	4,200
1962-----	24,000	600	-----	600	600	-----	600	4,800
1963-----	24,000	600	-----	600	600	-----	600	5,400
1964-----	24,000	600	-----	600	600	-----	600	6,000
1965-----	24,000	600	-----	600	600	-----	600	6,600
1966-----	24,000	600	-----	600	600	-----	600	7,200
1967-----	24,000	600	-----	600	600	-----	600	7,800
1968-----	24,000	600	-----	600	600	-----	600	8,400
1969-----	24,000	600	-----	600	600	-----	600	9,000
Total--	-----	9,000	-----	9,000	9,000	-----	9,000	-----

EDEN PROJECT

WYOMING

The Eden project in Sweetwater County, Wyo., was approved for construction by the President on September 18, 1940, under the water conservation and utility provision of the Interior Department Appropriation Act of 1940 (53 Stat. 685, 719, May 10, 1939). It was reauthorized by an act of Congress on June 28, 1949 (63 Stat. 277).

The project as now developed has an irrigable area of 17,088 acres, including 9,737.5 acres of formerly irrigated land in the vicinity of Eden and Farson, Wyo. Project features include Big Sandy Dam and Reservoir, Eden Reservoir, Little Sandy Diversion Dam, Little Sandy Canal, Means Canal, Eden Canal rehabilitation and enlargement, and a lateral and drainage system.

The total estimated cost of the project is \$11,467,169, all of which is allocated to irrigation. A contract has been executed with the Eden Valley Irrigation and Drainage District in accordance with the reauthorization act for completion of the project. The act provides "that construction costs of the irrigation features of the project which are not hereby made reimbursable by the water users shall be set aside in a special account against which net revenues derived from sale of power generated at the hydroelectric plants of the Colorado River Storage project in the upper basin shall be charged when such plants are constructed."

The features serving presently irrigated lands are being operated by the Bureau of Reclamation with funds provided by the water users. Consideration is being given to the possibility of obtaining an additional water supply for the project.

Repayment contracts.—The Eden Valley Irrigation and Drainage District repayment contract (IIr-1579) was signed June 8, 1950. The contract provides that, of the construction cost of the irrigation features of the project, not less than \$1,500,000 for the project of 20,000 irrigable acres, or a proportionate part thereof, based on the actual irrigable area as determined by the

Secretary of the Interior, shall be reimbursable by the water users in not to exceed 60 years.

Through amendatory contracts under authorization of the act of August 28, 1962, Public Law 87-613, the development periods were extended to 10 years for all blocks.

A supplemental contract executed April 25, 1969, authorizing deferment of construction charges for 1969, 1970 and 1971 under Public Law 86-308, directs that charges for all blocks will commence in 1972 and continue for 56 consecutive years thereafter.

The present irrigable area for service is 16,850 acres, with 15,323 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 is \$731,917 and \$47.77, respectively.

CONTRACTS AND NOTICE

- 1950, June 8: Contract IIr-1579 with Eden Valley Irrigation and Drainage District. Repayment in not to exceed 60 years in successive, annual installments of the amount allocated by the Secretary to each irrigation block, and to commence with the calendar year next succeeding the termination of the development period therefor; one-half on or before December 31, and the other half May 31. Contract provides a variable repayment plan based on price indices under which the annual installments shall not be more than 200 percent nor less than 15 percent of the base charge.
- 1962, December 28: Amendatory contract IIr-1579, to extend the development period for each block 3 years, defines the transfer of operation and maintenance equipment and the limitation of the cost to be paid in 20 equal annual installments.
- 1963, December 31: Amendatory contract IIr-1579, to make operation and maintenance payments on a quarterly basis, establish the reserve fund at \$25,000.
- 1964, May 15: Supplemental contract IIr-1579, for deferment of certain operation and maintenance charges and the repayment thereof.
- 1964, July 8: Amendatory contract IIr-1579, the repayment of deferred operation and maintenance charges and the establishing of the repayment on a biannual basis.

- 1964, September 9: Supplemental contract IIr-1579, providing for deferment of certain operation and maintenance charges and the repayment thereof.
- 1965, December 6: Amendatory contract IIr-1579, increased the development period to 10 years for all blocks.
- 1968, April 23: Notice for the operation and maintenance charges for the calendar year 1969 was \$45,000 to be paid by the District.
- 1969, April 25: Supplemental contract IIr-1579, for the deferment of certain construction charges for the years 1969, 1970, and 1971.

Summary of status of repayment contract:

Total value of contracted repayment	\$1,500,000
Total matured charges	0

Statement of project cost:

Big Sandy Dam and Reservoir	\$2,246,387
Little Sandy Diversion Dam and Eden Reservoir ..	337,114
Big Sandy return flow pumping plant	807,000
Canals, laterals, and drains	7,510,104
Farson pilot farm	34,000
Other features	201,390
Plant, property, and equipment	11,135,995
Corollary construction costs:	
Investigations	309,760
Transitional development	21,414
Subtotal corollary costs	331,174
Total costs allocated	11,467,169

Repayment and other credits:

Repayment realized:	
Contributions	91
Land leases	19,438
Repayment realized from other sources	1,169
Reserve for depreciation	19,646
Colorado River Development Fund	17,988

Subtotal repayment realized	58,332
Anticipated future repayment:	
Repayment contract unmatured	1,500,000
Colorado River Storage power revenues	9,902,742
Reserves for depreciation	6,095
Subtotal future repayment	11,408,837
Total repayment	11,467,169

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1955-----	\$16,000	\$16,000
1956-----	8,800	8,800
1957-----	16,000	13,225
1958-----	18,000	15,000
1959-----	23,004	14,741
1960-----	26,240	19,311
1961-----	26,000	17,620
1962-----	26,000	24,800
1963-----	33,500	33,500
1964-----	37,500	15,489
1965-----	41,000	30,750
1966-----	42,000	39,231
1967-----	45,000	45,550
1968-----	45,000	45,142
1969-----	45,000	35,445
Totals-----	449,044	374,604
Uncollected -----		74,440

EKLUTNA PROJECT

ALASKA

The Eklutna project was authorized by act of Congress, July 31, 1950 (64 Stat. 382), to supply hydroelectric power to the cities of Anchorage and Palmer and outlying districts to supplement existing power sources.

The Secretary of the Interior was authorized to construct, operate, and maintain the project.

Sale of firm energy to the city began on February 12, 1955. The functions were transferred from the Bureau of Reclamation to the Alaska Power Administration June 16, 1967.

EMERY COUNTY PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

UTAH

Construction of the Emery County project near Castle Dale in eastcentral Utah was approved as one of the initial participating projects of the Colorado River Storage project by the act of April 11, 1956 (70 Stat. 105).

Project features include Joes Valley Dam and Reservoir, with 62,500 acre-feet capacity; Huntington North Dam and Reservoir, with 4,850 acre-feet capacity; Swasey Diversion Dam, to divert water from Cottonwood Creek into the Cottonwood Creek-Huntington Canal which extends for 16 miles delivering water to project lands. The Huntington North service canal extending 3½ miles delivers water to project lands from Huntington North Reservoir. Some sections of the canal will require lining as a drainage preventative measure. Drainage works on the lands will be developed as needed. The project will furnish benefits to fish and wildlife and recreation.

Total cost of the project is estimated at \$13,785,465, with \$659,247 additional costs to be incurred by other agencies under section 8 of the authorizing act.

The development period began January 1, 1967.

The present irrigable area for service is 18,775 acres, with 16,617 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 is \$1,067,081 and \$64.22, respectively.

Repayment contract.—The Emery Water Conservancy District as the contracting agency agrees to pay \$2,935,000 as the irrigation obligation; \$385,000 is to come from ad valorem taxes. The District repayment contract is for 50 years with the development period fixed at 3 years, from and including the first year project water is available to substantially all the irrigable lands. First project water was delivered in 1966 on a rental basis.

CONTRACT AND NOTICE

1962, May 15: Contract 14-06-400-2427 with the Emery Water Conservancy District to repay \$2,935,000 in 50 successive equal annual installments.

1966, April 13: Notice was issued to the District that the 3-year development period would commence January 1, 1967.

Statement of project cost:

Joes Valley Dam and Reservoir	\$6,388,110
Huntington North Dam and Reservoir	2,081,786
Swasey Diversion Dam	331,924
Canals and drains	4,950,645
Other features	33,000
Plant, property, and equipment—actual and estimated	13,785,465
Costs incurred by other agencies—section 8	659,247
Total costs allocated	<u>14,444,712</u>

Repayment and other credits:

Repayment realized:	
Costs financed by C.R.D.F.	17,491
Contributions	1,436
Subtotal repayments realized	<u>18,927</u>

Anticipated future repayment:

Repayment contracts unmatured	2,935,000
Colorado River Storage project power revenues	8,063,481
Subtotal anticipated future repayment	<u>10,998,481</u>
Total repayment	<u>11,017,408</u>

Other credits:

Forest Service roads	30,880
Nonreimbursable:	
Highway improvement	437,177
Fish and wildlife (includes \$580,747, section 8)	2,880,747
Recreation (section 8)	78,500
Subtotal other credits	<u>3,427,304</u>
Total repayment and other credits	<u>14,444,712</u>

FALCON PROJECT

TEXAS

Falcon Dam is the first of the major international storage dams which the governments of the United States and Mexico agreed in the 1944 treaty to construct, operate, and maintain jointly through the International Boundary and Water Commission.

Falcon Dam, on the Rio Grande about 130 miles upstream from Brownsville, Tex., was built by the International Boundary and Water Commission of the United States and Mexico. The 5-mile-long, earth- and rock-fill dam has two powerplants—one on the Mexican side of the river and the other in Texas. The United States' powerhouse, like its Mexican counterpart, has three 10,500-kilowatt generators. Each powerplant contains three Francis-type turbines rated at 14,750 horsepower each at 100-foot head. Each plant has a centralized control room with separate and independent facilities, and is interconnected for transfer of energy from one to the other.

The completion of Falcon Dam in November 1953 created an international reservoir having a total capacity of 4,085,000 acre-feet for conservation and control of floods on the Rio Grande and providing hydroelectric power generating potentialities. The hydroelectric plant at the dam, authorized insofar as the United States is concerned by the act of October 5, 1949 (63 Stat. 701), was virtually completed and placed in operation in October 1954.

The joint operation and maintenance of the dam, reservoir, and powerplants by International Boundary and Water Commission are accomplished through overall supervision of the Commission and close coordination at the field level between superintendents of the respective sections of the Commission. The cost of operation and maintenance of Falcon Dam, pursuant to the terms of the 1944 treaty, is prorated between the two governments in proportion to the conservation capacity allotted to each country in the reservoir; that is, 58.6 percent to the United States and 41.4 percent

to Mexico. The cost of operation and maintenance of the hydroelectric plants is, pursuant to the treaty, divided equally between the two governments, and the energy generated is assigned to each country in like proportion. The division between the two sections of the cost of operation and maintenance is accomplished, as it was in the construction of the dam and powerplant, by allocation to each section of the Commission of a part of the work items in such a manner that the cost of the work performed by each government will conform to the above-stated percentage. The United States' share of the energy generated at the dam and not required in the operation of the United States' portion of the project is delivered to the Secretary of the Interior for transmission and disposition.

Repayment.—As directed by the act of June 18, 1954 (68 Stat. 255), the Secretary of the Interior in collaboration with the Secretary of State allocated Falcon Dam and Powerplant costs based on the 1960 plant-in-service accounts of the IBWC. Using this cost allocation formula, the United States' share of project costs for fiscal year 1969 is as follows: dam, reservoir, and village, \$30,317,235; and power facilities, \$7,136,304. The anticipated annual revenue is \$444,000, based on an estimate of 5.5 mills for firm power and 1.5 mills for secondary power.

Power marketing agent.—Pursuant to the act of Congress approved June 18, 1954 (68 Stat. 255), which conforms to the treaty with Mexico executed February 3, 1944, and proclaimed November 27, 1945 (59 Stat. 1219), the Bureau of Reclamation has been designated marketing agent for disposing of power and energy from the Falcon project.

The current major power contract in effect at Falcon project is No. 14-06-500-1479 between the United States and Central Power & Light Co., serving southern Texas. It is a special contract in effect until midnight of December 31, 1977.

PAYOUT STUDY

Fiscal year	Net revenues	Annual change in reserve for depreciation	Repayment commercial power		Total electric plant investment, end of year
			Amount repaid	Balance to be repaid	
1955	\$ - 31,843		\$ - 31,843	\$6,975,036	\$6,943,193
1956	- 100,370		- 100,370	7,075,406	6,943,193
1957	- 257,070		- 257,070	7,332,476	6,943,193
1958	- 80,264		- 80,264	7,464,808	6,995,261
1959	138,507		138,507	7,358,366	7,027,326
1960	60,109		60,109	7,297,082	7,026,151
1961	7,683		7,683	7,289,399	7,026,151
1962	38,854		38,854	7,256,787	7,032,393
1963	- 1,189,081	\$1,286,783	97,702	7,166,922	7,040,230
1964	- 288,898	99,385	- 189,513	7,356,435	7,040,230
1965	- 124,596	98,385	- 26,211	7,383,579	7,041,163
1966	- 307,218	98,423	- 208,795	7,592,178	7,040,967
1967	- 122,804	95,034	- 27,770	7,615,165	7,036,184
1968	- 236,977	99,147	- 137,830	7,753,115	7,036,304
1969	- 169,831	99,152	- 70,679	7,823,794	7,036,304
Subtotal	- 2,663,799	1,876,309	- 787,490	7,823,794	7,036,304
1970	- 168,695	98,200	- 70,495	7,974,289	7,116,304
1971	- 104,147	97,200	- 6,947	8,001,236	7,136,304
1972	- 104,821	97,200	- 7,621	8,008,857	7,136,304
1973	- 105,011	88,200	- 16,811	8,025,668	7,136,304
1974	- 105,432	96,200	- 9,232	8,034,900	7,136,304
1975	- 105,663	96,200	- 9,463	8,044,363	7,136,304
1976	- 105,899	87,200	- 18,699	8,063,062	7,136,304
1977	- 106,367	96,500	- 9,867	8,072,929	7,136,304
1978	- 32,213	88,200	55,987	8,016,942	7,136,304
1979	18,386	97,200	115,586	7,901,356	7,136,304
1980	21,276	86,200	107,476	7,793,880	7,136,304
1981	23,963	96,200	120,163	7,673,717	7,136,304
1982	26,967	86,200	113,167	7,560,550	7,136,304
1983	29,796	95,200	124,996	7,435,554	7,136,304
1984	32,921	85,200	118,121	7,317,433	7,136,304
1985	35,874	95,200	131,074	7,186,359	7,136,304
1986	39,151	83,200	122,351	7,064,008	7,136,304
1987	42,210	95,200	137,410	6,926,598	7,136,304
1988	45,645	82,200	127,845	6,798,753	7,136,304
1989	48,841	95,200	144,041	6,654,712	7,136,304
1990	52,442	80,700	133,142	6,521,570	7,136,304
1991	55,771	95,200	150,971	6,370,599	7,136,304
1992	59,545	95,200	154,745	6,215,854	7,136,304
1993	63,414	71,200	134,614	6,081,240	7,136,304
1994	66,779	94,200	160,979	5,920,261	7,136,304
1995	70,803	94,200	165,003	5,755,258	7,136,304
1996	74,929	60,200	135,129	5,620,129	7,136,304
1997	78,307	93,200	171,507	5,448,622	7,136,304
1998	82,594	93,200	175,794	5,272,828	7,136,304
1999	86,989	31,200	118,189	5,154,639	7,136,304
2000	89,944	94,200	184,144	4,970,495	7,136,304
2001	94,548	94,200	188,748	4,781,747	7,136,304
2002	99,266	94,200	193,466	4,588,281	7,136,304
2003	104,103	- 46,800	57,303	4,530,978	7,136,304
2004	105,536	93,200	198,736	4,332,242	7,136,304
2005	110,504	93,200	203,704	4,128,538	7,136,304
2006	115,597	93,200	208,797	3,919,741	7,136,304
2007	120,816	- 57,800	63,016	3,856,725	7,136,304
2008	122,392	92,200	214,592	3,642,133	7,136,304
2009	127,757	92,200	219,957	3,422,176	7,136,304

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—Continued

Fiscal year	Net revenues	Annual change in reserve for depreciation	Repayment commercial power		Total electric plant investment, end of year
			Amount repaid	Balance to be repaid	
2010-----	133,256	92,200	225,456	3,196,720	7,136,304
2011-----	138,892	— 64,800	74,092	3,122,628	7,136,304
2012-----	140,744	92,200	232,944	2,889,684	7,136,304
2013-----	146,568	10,200	156,768	2,732,916	7,136,304
2014-----	150,487	95,200	245,687	2,487,229	7,136,304
2015-----	156,629	80,700	237,329	2,249,900	7,136,304
2016-----	162,562	95,200	257,762	1,992,138	7,136,304
2017-----	169,007	95,200	264,207	1,727,931	7,136,304
2018-----	175,612	71,200	246,812	1,481,119	7,136,304
2019-----	181,782	94,200	275,982	1,205,137	7,136,304
2020-----	188,682	93,200	281,882	923,255	7,136,304
2021-----	195,729	61,200	256,929	666,326	7,136,304
Total-----	484,969	5,985,009	6,469,978	666,326	7,136,304

FLORIDA PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

Construction of Florida project in southwestern Colorado, near Durango, was authorized as one of the initial participating projects of the Colorado River Storage Project by the act of April 11, 1956 (70 Stat. 105).

The main features of the project consist of the Lemon Dam and Reservoir, replacement of the Florida Farmers Ditch Diversion Dam, the enlargement of Florida Farmers Ditch and of the Florida Canal, the construction of four laterals known as Pine, Cottonwood, Cedar, and Lone Pine, and sublaterals.

The present irrigable area for service is 19,450 acres, with 15,852 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$1,224,315 and \$77.23, respectively.

The project provides for the regulation of surplus flow and flood water control of the Florida River with the Lemon Dam and Reservoir being the major construction feature, having a capacity for 40,146 acre-feet of water. The project is estimated to cost \$11,164,810, excluding \$118,250 for costs to be incurred by other agencies under section 8 of the authorizing act.

Repayment contract.—The Florida Water Conservancy District is the contracting agency, agreeing to repay to the United States \$1,775,000 in 50 successive equal annual installments commencing December 31 of the calendar year succeeding the end of the development period which began January 1, 1966. There is a \$125,000 payment on Indian lands, which is deferred by the act of July 1, 1932.

The Bureau of Reclamation operated and maintained project-constructed works with funds advanced by the water users until the latter assumed this responsibility on January 1, 1968.

NOTICES AND CONTRACTS

- 1960, December 29: Contract 14-06-400-1322, with Florida Water Conservancy District for repayment of \$1,775,000 in 50 successive equal annual installments by December 31 of the calendar year next succeeding the end of the development period, plus \$125,000 payment on Indian lands deferred by act of July 1, 1932.
- 1962, May 24: Contract 14-06-400-2430, with the Florida Water Conservancy District for minor construction work amounting to \$100,000, pursuant to the act of June 13, 1956, to be repaid as part of the District's repayment obligation of \$1,775,000.
- 1963, May 7: Contract 14-06-400-3038, among the United States, Bureau of Indian Affairs, Southern Ute Tribe, Bureau of Reclamation, and the Florida Water Conservancy District for allocation of 1,819 acre-feet of water for 713.8 acres of tribal Indian lands. The tribe agrees to collect and pay to the project operator operation and maintenance cost charges.
- 1963, May 21: District was notified that project water would be available June 1, 1965, with the development period commencing January 1, 1965. The operation and maintenance charges are estimated at \$9,000 for the first year.
- 1963, July 12: Florida Water Conservancy District notified the Bureau of Reclamation that if the United States is prepared to deliver the project works to the District for operation and maintenance under the repayment contract, the District shall assume the obligation of operation and maintenance of the entire project works on or about January 1, 1965, barring unforeseen circumstances.
- 1964, Nov. 20: Florida Water Conservancy District notified by Bureau of Reclamation that notice of May 21, 1963, is rescinded to provide that the 5-year development would commence January 1, 1966.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,900,000
Total matured charges	0

Statement of project cost and repayment:

REPAYMENT OF RECLAMATION PROJECTS

Plant, property, and equipment:

Lemon Dam and Reservoir	\$8,200,185
Florida Ditch Diversion Dam	283,335
Florida Farmers Ditch enlargement	1,019,326
Other features	1,619,470
Fish screen structure	35,677

Subtotal plant, property, and equipment ...	11,157,993
Corollary construction costs—property transfers ..	6,817

Total cost	11,164,810
Cost incurred by other agencies—section 8	118,250
Total	11,283,060

Reimbursable costs:

Irrigation	10,357,414
Investigations prepared	22,396

Total	10,379,810
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Nonreimbursable costs:

Fish and wildlife	616,100
Flood control	181,000
Recreation	106,150

Total	903,250
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Repayment and other credits:

Repayment realized—costs financed by	
Colorado River Development Fund	22,396
Anticipated future repayment:	
Repayment contracts unmatured	1,900,000
Colorado River Storage project	
(power revenues)	8,457,414

Subtotal anticipated future repayment	10,357,414
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Total repayment	10,379,810
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Other credits:

Nonreimbursable costs:

Fish and wildlife (includes \$12,100, section 8)	616,100
Flood control	181,000
Recreation—section 8	106,150

Subtotal other credits	903,250
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Total repayment and other credits	11,283,060
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OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1966-----	\$9,000	\$9,000
1967-----	9,000	9,000
1968-----		
1969-----		
Total -----	18,000	18,000

FORT PECK PROJECT

MONTANA—NORTH DAKOTA

The Fort Peck Project Act of May 18, 1938 (52 Stat. 403), authorized the completion, maintenance, and operation of the Fort Peck project. The Secretary of War was made responsible for completion, maintenance, and operation of the dam and powerplant. The Bureau of Reclamation is responsible for construction, maintenance, and operation of facilities for transmitting and marketing the electric energy generated by the powerplant. Under the act, schedules of rates and charges for electric energy are approved by the Federal Power Commission.

The principal features of the project in operation as of July 1, 1969, are 105.20 miles of 230-kilovolt transmission lines, 291.27 miles of 161-kilovolt transmission lines, 541.62 miles of 115-kilovolt transmission lines, 19.58 miles of 69-kilovolt transmission lines, 13.79 miles of 57-kilovolt transmission lines, 48.88 miles of 34.5-kilovolt transmission lines, 5.41 miles of 2.3-kilovolt transmission lines, and 28 substations having a combined capacity of 359,550 kilovolt amperes.

The total construction cost for power transmission

facilities for the project is \$18,128,277. Under the act of May 18, 1938, the entire cost of the powerplant and transmission facilities will be repaid from power revenues. These costs and the revenues associated with the project have been consolidated with those of the Missouri River Basin project for electric rate determination and repayment purposes.

Sale of power began in fiscal year 1944.

All receipts from the sale and transmission of electric energy are classified as revolving funds and are immediately available for allotment and expenditure for operation and maintenance. Transfer of revenues in excess of an operation and maintenance working fund of \$500,000 is made in June of each year to the Treasury of the United States for credit to miscellaneous receipts.

The transmission facilities of the project are operated by the Bureau of Reclamation and the costs of operation and maintenance are financed directly from the revolving fund.

FORT SUMNER PROJECT

NEW MEXICO

The Fort Sumner project in DeBaca County of New Mexico was authorized by act of July 29, 1949 (63 Stat. 483).

The original project was developed by private interests to irrigate 6,500 acres of land. By 1949, floods had caused considerable damage to the diversion dam on the Pecos River, and the Fort Sumner Irrigation District contracted with the Bureau of Reclamation to construct a new diversion dam and rehabilitate the existing irrigation system. Facilities of the project on which the Bureau of Reclamation performed construction work include Fort Sumner diversion dam, main canal, pumping plant, high line canal, drains, and lateral system.

Of the 6,500 acres of irrigation service land, 5,623 acres were irrigated during the 1969 crop year, with gross crop value of \$403,828 and an average of \$71.82 per acre.

The total completed cost of the project is \$2,433,320, including \$60,934 property transfers. The entire amount is allocated to irrigation. The water users contributed land for a value of \$175.

CONTRACTS

- 1948, November 5: Contract 11r-1524 with Fort Sumner Irrigation District for an emergency appropriation of \$60,000, payable in maximum of 18 years.
- 1949, September 14: Supplement to contract 11r-1524 for \$2,464,000, repayable in 80 equal annual installments subject to District's option to elect variable repayment formula. Installment due dates are February 1 and August 1 of each year.
- 1960, June 7: Supplement to contract 11r-1524 reduced the 1961 payment from \$30,402 to \$7,600 and rescheduled the deferred portion of \$22,802 in five equal payments beginning February 1, 2029.
- 1961, June 15: Supplement to contract 11r-1524 deferred one-half of 1962 and 1963 payments and modified the June 7, 1960, contract to spread the 1961, 1962, and 1963 deferred charges equally and to be added to the regular

payments during the 20-year period from the year 2014 through 2033.

1963, August 14: Amendment No. 1 to contract 11r-1524 modifies the original contract and supplements by establishment of a new base annual charge of \$31,162, modified by the relationship of current economic conditions to the expected norm for both parity ratio and gross crop value. This became effective with the payment due February 1, 1964.

Summary of status of repayment contracts:

Total value of contracted repayment	\$2,432,167
Total matured charges	347,064
Total matured charges repaid	374,064
Total matured charges unpaid	0

Repayment contracts.—The first repayment contract No. 11r-1524, dated November 5, 1948, covered an emergency appropriation of \$60,000, which was not used. The second contract, dated September 14, 1949, was supplemental to the first contract and was for \$2,464,000, payable in 80 equal annual installments. The repayment obligation was adjusted to actual costs as of June 30, 1956, thus making the value of the repayment contract \$2,432,167. The first installment was paid in 1954, and subsequent annual payments were made through 1960. Because of unfavorable economic conditions, partial postponement of the 1961, 1962, and 1963 annual installments was authorized by supplemental contracts dated June 7, 1960, and June 15, 1961. Because of continued financial problems of the District, contract amendment No. 1 to contract No. 11r-1524, dated August 14, 1963, was executed which provides for annual installments based on a variable repayment formula.

Payout schedule.—Under the schedule established by the August 14, 1963, contract, repayment will be completed in the year 2034 by annual payments of \$31,162.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1954-----	\$2,432,167	\$30,402	-----	\$30,402	\$30,402	-----	\$30,402	\$30,402
1955-----	2,432,167	30,402	-----	30,402	30,402	-----	30,402	60,804
1956-----	2,432,167	30,402	-----	30,402	30,402	-----	30,402	91,206
1957-----	2,432,167	30,402	-----	30,402	30,402	-----	30,402	121,608
1958-----	2,432,167	30,402	-----	30,402	30,402	-----	30,402	152,010
1959-----	2,432,167	30,402	-----	30,402	30,402	-----	30,402	182,412
1960-----	2,432,167	30,403	-----	30,403	30,403	-----	30,403	212,815
1961-----	2,432,167	7,600	-----	7,600	7,600	-----	7,600	220,415
1962-----	2,432,167	15,201	-----	15,201	15,201	-----	15,201	235,616
1963-----	2,432,167	15,201	-----	15,201	15,201	-----	15,201	250,817
1964-----	2,432,167	8,625	-----	8,625	8,625	-----	8,625	259,442
1965-----	2,432,167	16,883	-----	16,883	16,883	-----	16,883	276,325
1966-----	2,432,167	17,529	-----	17,529	17,529	-----	17,529	293,854
1967-----	2,432,167	17,819	-----	17,819	17,819	-----	17,819	311,673
1968-----	2,432,167	17,044	-----	17,044	17,044	-----	17,044	328,717
1969-----	2,432,167	18,347	-----	18,347	18,347	-----	18,347	347,064
Total--	-----	347,064	-----	347,064	347,064	-----	347,064	-----

FRENCHTOWN PROJECT

MONTANA

The President authorized construction of the Frenchtown project in Missoula County, Mont., on September 21, 1935.

Project facilities, all constructed by the United States, consist of an earth and rockfill diversion dam on a side channel of the Clark Fork (Missoula) River, a gravity flow distribution system, including 17 miles of main canal, 21 laterals, and necessary water-control structures.

The project was constructed to irrigate nearly 5,000 acres between Grass Valley and Huson, near Missoula, Mont. Construction of the canal was started October 3, 1935. Work on the diversion dam began April 9, 1936. Some water was available in 1936. Since that date, there has been little change in the land area served by the project facilities. In 1969, the irrigable area for service was 4,580 acres and the irrigated area consisted of 4,027 acres. The gross value of crops produced on these lands for that year was \$218,591 with an average value per irrigated acre of \$54.28.

The cost of constructing the project was \$296,294. In addition, interest funded in the amount of \$2,038 has been included in the repayment contract making a total repayable cost of \$297,282. One thousand fifty dollars in excess of repayment contract coverage is nonreimbursable.

Project works were operated by Government forces until January 1, 1939, and since then by the District.

Repayment contracts.—Water users organized the Frenchtown Irrigation District on November 19, 1934, and entered into a repayment contract with the United States on July 11, 1935. Several amendatory contracts were concluded, primarily to adjust the maximum construction obligation. The most recent contract, concluded on September 6, 1951, was negotiated under authority of section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187). This contract was approved by the Congress under the act of June 23, 1952 (66

Stat. 151), and signed by the Secretary on July 18, 1952.

PUBLIC NOTICES AND CONTRACTS

- 1935, July 11: Contract with Frenchtown Irrigation District. Maximum construction charge not to exceed \$180,000, payable in 80 equal semiannual installments. The irrigable acreage on date of contract was 4,897 acres.
- 1936, June 26: Contract with Frenchtown Irrigation District. Maximum construction charge not to exceed \$240,000, payable in 40 semiannual installments of \$2,250 and the balance in 40 equal semiannual installments.
- 1937, April 7: Contract with Frenchtown Irrigation District. Maximum construction charge not to exceed \$260,000, payable in 40 semiannual installments at \$2,250 and 40 semiannual installments at \$4,250.
- 1938, January 10: Contract with Frenchtown Irrigation District. Maximum construction charge not to exceed \$295,000 payable in 78 semiannual installments at graduated rates varying from \$625 for the first 8 payments to \$5,375 for payments 39 through 78.
- 1949, February 1: Contract with Frenchtown Irrigation District. Authorized United States to reimburse the District for not to exceed \$3,000 for repair of damage caused by the 1948 flood. This money was nonreimbursable.
- 1951, September 6: Amendatory contract 111-813 with Frenchtown Irrigation District, effective July 18, 1952, providing for repayment in about 42 years. Annual installments are payable one-half on December 31 of year for which they are applicable and one-half on succeeding June 30. Fixed annual assessment may be replaced by variable payments by application of specified normal and percentage plan plus parity at the option of the District. The irrigable acreage on date of contract was 4,810 acres.
- 1953, January 8: Notice to Frenchtown Irrigation District advising of actual contract value and obligation of District at that date.
- 1958, October 23: Notice to Frenchtown Irrigation District advising that all remaining construction charges on 6.62 acres were paid by Montana State Highway Department in amount of \$325. This resulted in a proportionate reduction in the remaining installments to become due from the District.

Summary of status of repayment contracts:

Total value of contracted repayment	\$297,282
Total matured charges	149,265
Total matured charges repaid	149,265
Total matured charges unpaid	0

Statement of cost and repayment:

Cost:

Irrigation plant cost	\$296,294
Interest and penalties	2,038
Total	298,332

Repayment:

Repayment realized—repayment contracts	149,265
Anticipated future repayment—repayment contract	148,017
Total repayments	297,282
Other credits—chargeoffs	1,050
Total repayments and other credits	298,332

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1940-----	\$296,439	\$1,250	-----	\$1,250	\$1,250	-----	\$1,250	\$1,250
1941-----	296,439	2,206	-----	2,206	1,581	-----	1,581	2,831
1942-----	296,439	1,394	-----	1,394	769	\$625	1,394	4,225
1943-----	296,439	1,394	-----	1,394	769	625	1,394	5,619
1944-----	296,439	2,644	-----	2,644	1,394	625	2,019	7,638
1945-----	296,439	4,178	-----	4,178	1,678	1,250	2,928	10,566
1946-----	296,439	2,644	-----	2,644	1,394	-----	1,394	11,960
1947-----	279,099	2,644	-----	2,644	1,394	-----	1,394	13,354
1948-----	279,099	2,644	-----	2,644	2,644	-----	2,644	15,998
1949-----	279,099	5,144	-----	5,144	5,144	-----	5,144	21,142
1950-----	279,099	5,144	-----	5,144	5,144	-----	5,144	26,286
1951-----	279,099	5,000	-----	5,000	5,000	-----	5,000	31,286
1952-----	¹ 297,282	5,000	² —\$5,000	-----	5,000	-----	5,000	36,286
1953-----	297,282	5,000	-----	5,000	5,000	-----	5,000	41,286
1954-----	297,282	6,735	-----	6,735	6,735	-----	6,735	48,021
1955-----	297,282	6,735	-----	6,735	6,735	-----	6,735	54,756
1956-----	297,282	6,735	-----	6,735	6,735	-----	6,735	61,491
1957-----	297,282	6,735	-----	6,735	6,735	-----	6,735	68,226
1958-----	297,282	6,735	-----	6,735	6,735	-----	6,735	74,961
1959-----	297,282	7,050	-----	7,050	7,050	-----	7,050	82,011
1960-----	297,282	6,725	-----	6,725	6,725	-----	6,725	88,736
1961-----	297,282	6,725	-----	6,725	6,725	-----	6,725	95,461
1962-----	297,282	6,725	-----	6,725	3,363	-----	3,363	98,824
1963-----	297,282	6,726	-----	6,726	6,726	3,362	10,088	108,912
1964-----	297,282	6,726	-----	6,726	6,726	-----	6,726	115,638
1965-----	297,282	6,725	-----	6,725	6,725	-----	6,725	122,363
1966-----	297,282	6,726	-----	6,726	6,726	-----	6,726	129,089
1967-----	297,282	6,725	-----	6,725	6,725	-----	6,725	135,814
1968-----	297,282	6,726	-----	6,726	6,726	-----	6,726	142,540
1969-----	297,282	6,725	-----	6,725	6,725	-----	6,725	149,265
Total-----	-----	154,265	—5,000	149,265	142,778	6,487	149,265	-----

¹ Obligation is based on amendatory contract approved by Secretary on July 18, 1952. This includes cost of economic study and interest on \$5,000 delinquent under old contract to effective date of this new contract.

² Delinquent accruals under contract dated July 11, 1935, with interest thereon, have been funded with construction obligation.

FRUITGROWERS DAM PROJECT

COLORADO

The construction of Fruitgrowers Dam project in Delta County, near Austin, Colo., was approved by the President on January 11, 1938.

In 1939, the Bureau of Reclamation entered into a contract with the Orchard City Irrigation District to reconstruct Fruitgrowers Dam and Reservoir and Dry Creek Diversion Dam and Canal, originally built by private irrigators in 1898 to furnish water to 2,600 acres of irrigable land. The present irrigable area for service is 2,690 acres with 1,923 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$699,002 and \$363.50, respectively.

The total project cost of \$200,309, excluding \$432 funded operating costs, is allocated to irrigation and is reimbursable. The entire amount is repayable in 39 annual installments from 1942 through 1980, under the terms of the repayment contract dated September 7, 1939.

Operation and maintenance of the project features was transferred to the Orchard City Irrigation District on March 1, 1940.

CONTRACT AND NOTICE

1939, September 7: Contract 11r-1155 with the Orchard City Irrigation District for repayment in 39 annual installments of the entire cost of the project.

1951, April 12: Final cost notice issued to District in amount of \$200,741.

Summary of status of repayment contract:

Total value of contracted repayment	\$198,241
Total matured charges	132,529
Total matured charges repaid	132,529
Total matured charges unpaid	0

Statement of project cost and repayment:

Fruitgrowers Dam and Reservoir	\$177,933
Dry Creek Diversion Dam and ditch	22,376
Total project cost	200,309
Funded operating charges	432
Total reimbursable irrigation costs	200,741

Repayment of reimbursable costs:

Orchard City Irrigation District	198,241
Water rental	2,500
Total	200,741

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1942-----	\$213,000	\$2,500	-----	\$2,500	\$2,500	-----	\$2,500	\$2,500
1943-----	213,000	2,500	-----	2,500	2,500	-----	2,500	5,000
1944-----	213,000	2,500	-----	2,500	2,500	-----	2,500	7,500
1945-----	213,000	2,500	-----	2,500	2,500	-----	2,500	10,000
1946-----	213,000	2,500	-----	2,500	2,500	-----	2,500	12,500
1947-----	213,000	2,500	-----	2,500	2,500	-----	2,500	15,000
1948-----	213,000	2,500	-----	2,500	2,500	-----	2,500	17,500
1949-----	213,000	2,500	-----	2,500	2,500	-----	2,500	20,000
1950-----	213,000	2,500	-----	2,500	2,500	-----	2,500	22,500
1951-----	198,241	2,500	-----	2,500	2,500	-----	2,500	25,000
1952-----	198,241	5,974	-----	5,974	5,974	-----	5,974	30,974
1953-----	198,241	5,974	-----	5,974	5,974	-----	5,974	36,948
1954-----	198,241	5,974	-----	5,974	5,974	-----	5,974	42,922
1955-----	198,241	5,974	-----	5,974	5,974	-----	5,974	48,896
1956-----	198,241	5,974	-----	5,974	5,974	-----	5,974	54,870
1957-----	198,241	5,973	-----	5,973	5,973	-----	5,973	60,843
1958-----	198,241	5,974	-----	5,974	5,974	-----	5,974	66,817
1959-----	198,241	5,974	-----	5,974	5,974	-----	5,974	72,791
1960-----	198,241	5,974	-----	5,974	5,974	-----	5,974	78,765
1961-----	198,241	5,973	-----	5,973	5,973	-----	5,973	84,738
1962-----	198,241	5,974	-----	5,974	5,974	-----	5,974	90,712
1963-----	198,241	5,974	-----	5,974	5,974	-----	5,974	96,686
1964-----	198,241	5,974	-----	5,974	5,974	-----	5,974	102,660
1965-----	198,241	5,973	-----	5,973	5,973	-----	5,973	108,633
1966-----	198,241	5,974	-----	5,974	5,974	-----	5,974	114,607
1967-----	198,241	5,974	-----	5,974	5,974	-----	5,974	120,581
1968-----	198,241	5,974	-----	5,974	5,974	-----	5,974	126,555
1969-----	198,241	5,974	-----	5,974	5,974	-----	5,974	132,529
Total--	-----	132,529	-----	132,529	132,529	-----	132,529	-----

FRUITLAND MESA PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

The Fruitland Mesa project was authorized by the act of September 2, 1964 (78 Stat. 852), as a participating project under the Colorado River Storage Project Act (70 Stat. 105). It is located in the Gunnison River Basin in western Colorado. Project lands are between the town of Crawford and Black Canyon of the Gunnison National Monument. It is planned that the project will furnish full irrigation service to 15,870 acres and supplemental service to 7,010 acres and will provide fish and wildlife and recreation benefits.

Principal project features include Soap Park Dam and Reservoir with 48,000 acre-feet capacity; Crystal Creek Diversion Dam located downstream from the outlet portal of Black Mesa conduit; Curecanti Creek Diversion Dam on Curecanti Creek to divert water into the Black Mesa conduit; Black Mesa conduit consisting of a tunnel, flume and pipe extending 11.2 miles; Fruitland canal and laterals. The canal will be 21 miles

in length with 42 miles of laterals and Gould canal siphons replacing two existing siphons. Drainage works will be constructed as needed.

Total estimated cost is \$34,189,000, with the Fruitland Mesa Water Conservancy District as the contracting agency agreeing to repay \$3,790,000 in 50 equal annual installments. Of the total costs, \$274,000 will be used for fish and wildlife and \$1,909,000 for recreation, which are nonreimbursable.

There will be three irrigation blocks established, with the development period ranging from 4 to 10 years.

CONTRACT

1969, June 25: Contract 14-06-400-5113 with the Fruitland Mesa Water Conservancy District provides for 50-year repayment for each of 3 development blocks—block I, 4-year development period, blocks II and III, each a 10-year development period.

FRYINGPAN-ARKANSAS PROJECT

COLORADO

The Fryingpan-Arkansas project is a multipurpose transmountain diversion development in central Colorado, authorized under Public Law 590, 87th Congress, approved August 16, 1962 (76 Stat. 389). The project will provide water for supplemental irrigation of 280,600 acres and an annual supply of 20,500 acre-feet of water for municipal use. The two project powerplants will have an installed capacity of 111 megawatts and consist of a pumped storage plant with 100 megawatts of peaking capacity and a smaller plant with 11 megawatts of capacity. Provisions for installation of an additional 100 megawatts of peaking capacity at the Mt. Elbert Pumped-Storage Powerplant when future power demands warrant installation are included in the plan. In addition, the project will provide flood control, retain sediment, preserve fish and wildlife, and provide recreational opportunities.

The principal features are Ruedi Dam and Reservoir, Sugar Loaf Dam and Reservoir enlargements, Twin Lakes Dam and Reservoir enlargements, Pueblo Dam and Reservoir, North and South Side collection systems, Charles H. Boustead Tunnel (formerly Fryingpan-Arkansas Divide Tunnel), Malta Diversion Dam and Canal, Mt. Elbert and Otero Powerplants and facilities, transmission lines and associated substations, 189 miles of municipal water pipelines, and permanent operation and maintenance facilities.

Construction of the project began in 1965. Features completed as of June 30, 1969, include Ruedi Dam and Reservoir, Sugar Loaf Dam and Reservoir, Chapman and South Fork tunnels and diversion structures which are part of the South Side collection system. Although not complete, the Charles H. Boustead Tunnel is holed through the Continental Divide. The project construction period is estimated to extend through 1977 for a total of 13 years.

The total estimated cost of the project in the 1969 proposed repayment plan, including repayable interest

during construction of \$4,456,048 assessed to power and municipal and industrial water, is \$241,727,000.

<i>Feature or program item</i>	<i>Project total</i>
<i>Multipurpose features</i>	
Sugar Loaf Dam and Reservoir	\$9,560,000
Twin Lakes Dam and Reservoir	11,395,000
Pueblo Dam and Reservoir	61,269,951
Ruedi Dam and Reservoir	22,300,000
Mt. Elbert Forebay Dam and Reservoir	3,530,000
Clear Creek Dam and Reservoir	1,500,000
Malta Diversion Dam	440,000
Halfmoon Diversion Dam	225,000
South Side collection system	25,210,000
North Side collection system	18,500,000
Charles H. Boustead Tunnel	16,150,000
Otero Canal	5,057,000
Malta Canal	726,000
Mt. Elbert Canal	8,500,000
Arkansas River channelization	540,000
Permanent operating facilities	864,000
O&M housing	118,000
Total multipurpose	185,884,951
<i>Power facilities</i>	
Mt. Elbert Pump Storage Powerplant	22,785,000
Otero Powerplant	3,670,000
Transmission lines and substations	2,642,000
Total electric plant	29,097,000
Municipal water facilities	14,824,000
Recreation facilities	5,214,446
Fish and wildlife facilities	2,250,555
Interest during construction	4,456,048
Total cost	241,727,000

Allocations and probable repayment are as follows:

<i>Allocations:</i>	
Irrigation	\$93,704,000
Power	37,983,000
M&I water	35,010,000
Flood control	19,093,000
Fish and wildlife	46,130,000
Recreation	8,432,000
Road relocation	1,375,000

Total	241,727,000
Probable repayment:	
By irrigators	\$54,766,000
By power revenues	73,627,000
M&I water contracts	38,304,000
Subtotal	166,697,000
Nonreimbursable	75,030,000
Total	241,727,000

The Southeastern Colorado Water Conservancy District has executed a 40-year water service contract which, with a subsequent renewal and with the application of an estimated \$35.6 million of surplus power revenues, is designed to return to the United States the reimbursable costs assigned to irrigation and municipal and industrial water within the authorized 50-year payout period following completion of project construction. A brief synopsis of the contract follows:

CONTRACTS

1965, January 21: Contract 14-06-700-4715 with the Southeastern Colorado Conservancy District is a 40-year water service [9(e)] contract, rather than a fixed obligation type of repayment contract, and provides for renewal of the contract for successive periods of not to exceed 40 years. The annual service charge payable by the District consists of three parts:

1. Nine-tenths of one mill on the assessed valuation of all taxable property in the District (payable every year regardless of quantity of water taken);
2. Five dollars and forty cents for each acre-foot of project water delivered to the District for irrigation and municipal and industrial use; and
3. Two dollars and twenty-five cents for each acre-foot of winter stored water delivered to the District.

The annual service charge is payable one-half on June 30 and one-half on December 31 of each year.

The District will have three sources of revenue for meeting annual water service charges—ad valorem tax, sale of water, and charges for storing winter water. The aggregate for payments (estimated to average about \$1 million annually) from the ad valorem tax is expected to constitute about 65 percent of the total amount paid by the District by the end of the 50-year payout period. Payments for project water at the \$5.40 per acre-foot rate (estimated to average about \$429,300 annually, based on 79,500 acre-feet) are expected to constitute about 27 percent of the total amount paid by the District by the end of the 50-year payout period.

District payments for delivery of winter stored water will depend on a successful development of the winter storage program by the District. The winter water storage program contemplates (a) the storage of Arkansas River flows currently being diverted for

winter irrigation, under existing water rights, during the 5-month period November 1 to March 31, and (b) the release of this water during the ensuing irrigation season when more beneficial use can be made of the water.

The ultimate annual payment for winter storage is estimated to average \$148,275, based on an average annual release of 65,900 acre-feet of winter-stored water at the rate of \$2.25 per acre-foot. It is estimated that about 8 percent of the total amount paid by the District to the United States by the end of the 50-year payout period will have been derived from winter storage service revenues.

All of the 13 ditch companies within the District and the seven ditch companies outside the District below John Martin Dam will have to agree to the winter storage program. In the event a satisfactory winter storage program does not materialize, and in order to compensate for the loss of revenue, the contract provides for the escalation of the \$5.40 per acre-foot rate for project water, commencing with the ninth water delivery year. The rate of escalation approximates 40 cents per acre-foot every two years until the rate reaches \$7.50 per acre-foot, which would govern for the balance of the 40-year contract period.

If, prior to the substantial completion of the water collection, carriage, and storage facilities and the initial delivery of water to the District, the Secretary finds that the construction cost of the project is expected to increase to the point where the payments required of the District under the contract, and renewals thereof, and payments by others for project services, will be insufficient to return by the end of the 50-year authorized payment period the District's allocated share of the cost of the project, no water shall be furnished the District until the District has agreed to satisfactory revision of the payments to be made under the contract.

OTHER CONTRACTS

1965, November 1: Contract 14-06-700-6005 with Colorado Fuel and Iron Corp. (now CF&I Steel Corp.) provides for the project to acquire the then-existing Sugar Loaf Dam and Turquoise Reservoir from CF&I Steel Corp. CF&I Steel Corp. obtained replacement space in the project system in the amount of 17,416 acre-feet and an option to purchase up to 10,000 acre-feet of firm space in the project system at a cost including interest of not to exceed \$4.00 per acre-foot. This option must be exercised within 10 years from April 15, 1968.

1965, December 14: Contract 14-06-700-6019 with Cities of Colorado Springs and Aurora, Colo., for transportation of water from the Homestake project, which is a joint venture of the two cities. This is a service type contract

which provides for storage in East Slope project system for Homestake transmountain water of 30,000 acre-feet annually and conveyance services in East Slope facilities of the Fryingpan-Arkansas project. For this service the cities will pay to the project \$4 million plus interest at the project rate of 3.046 percent over a 50-year period.

1969, April 25: Contract 14-06-700-6576 with High Line Canal Co. This 40-year service type contract, which is renewable, provides for the carriage of the company's Western slope water (estimated 6,900 acre-feet annually) to the Colorado Eastern slope via the project's Nast and Charles H. Boustead Tunnels in lieu of the company's existing Busk-Ivanhoe Tunnel, which would need extensive rehabilitation to place it in efficient operating condition. The contract provides also for the storage in the project's East Slope reservoir system of up to 10,000 acre-feet annually of the company's imported water. The furnishing of transport and storage services is subject to the availability of temporarily unused capacities not needed for project operations or for certain other contractors for project services. Pending retirement of the company's outstanding long term indebtedness in 1983, the charge for carriage service will be \$0.50 per acre-foot and, commencing in 1984, will increase to \$1.60 per acre-foot. Similarly, the storage charge will be \$1.00 per acre-foot through 1983, and then increase to \$3.10 per acre-foot commencing in 1984. This is estimated to result in 40-year average per acre-foot charges of \$1.30 for carriage and \$2.50 for storage. The company will pay in advance annually (on or before April 15) a "readiness-to-serve" carriage charge based on 1,500 acre-feet and a "readiness-to-serve" storage charge based on 1,000 acre-feet—both charges to be computed using the applicable dollar per acre-foot rates.

The revenues obtained by the project from the CF&I contract, the Homestake contract, and the High Line Canal Co. contract, as well as from proposed contracts in the future with the City of Pueblo, Twin Lakes Reservoir and Canal Co., and others for project services, will be applied to the return of reimbursable project costs.

Pursuant to the project authorizing act, construction of the two single-purpose municipal pipelines by the Bureau of Reclamation is to be undertaken only in the event the Secretary of the Interior finds that it would be infeasible for the communities involved to undertake such construction. On December 5, 1969, the Secretary made the determination that it would be infeasible for the communities involved, either singly or jointly, to undertake construction of the pipelines. Detail planning studies for the Fountain Valley conduit, which will serve Colorado Springs and other Fountain Valley communities, and the Arkansas Valley conduit, which will serve 13 towns and 26 water districts in the Arkansas Valley, are in progress. It is anticipated that the Southeastern Colorado Water Conservancy District will execute a repayment contract with the United States for repayment in full of the cost to construct the two pipelines plus interest at the project rate (3.046 percent) over a 50-year period. The District in turn will make subcontracts with the municipal water user entities to assure revenue for repayment of the pipelines.

GARDEN CITY PROJECT

KANSAS

The Garden City project was authorized for construction by the Secretary under the Reclamation Act of 1902 on October 5, 1905.

A public notice, dated March 6, 1908, opened for irrigation 10,656 acres of irrigable land. The delivery of water was begun on April 1, 1908. Irrigation water from pumping units was available in 1908 and 1909. During the season of 1908, 4,885 acres of land were irrigated, in part with pumped water. During 1909, 6,546 acres were irrigated. The cost of operation and maintenance proved too high to irrigate crops in large tracts. Furthermore, sufficient rainfall to mature fair crops lessened the desire of the landowners for an irrigation system, and payment of charges as they became due the United States was not made. The powerplant at Garden City was therefore closed in 1910.

The act of June 5, 1920 (41 Stat. 1054), provided

that contracts affecting lands in the Garden City project, between the Finney County Water Users' Association or individual landowners, and the Secretary of the Interior, for the supply and use of water from the irrigation plant of the United States, were canceled and relieved, and liens upon the lands created by such contracts were released and discharged.

The total amount that has been charged off as a loss to the Reclamation fund for this project is \$334,474.96. Of this, the 225-kilowatt steam turbine powerplant and transmission line cost \$124,612; the pumping station, \$109,289; and the canal system, \$88,473.

PUBLIC NOTICES

1908, March 6: Public notice. Construction charges \$35 per acre, payable in not less than 5 nor more than 10 annual installments.

1908, November 30: Public notice. Construction charge increased to \$37.50 per acre.

GILA PROJECT

ARIZONA

Construction of the Gila project in Yuma County, Ariz., was originally authorized under a finding of feasibility approved by the President on June 21, 1937. The project was reauthorized and reduced in area to 115,000 acres by the act of July 30, 1947 (61 Stat. 628). The act of June 13, 1949 (63 Stat. 172), authorized the furnishing of water to the Yuma Auxiliary project through the works of the Gila project.

Project features include Gila desilting works at Imperial Dam, Gila Gravity Main Canal, the Mesa unit canals and distribution system, the lateral system in the North Gila Valley originally constructed as part of the Yuma project, the Wellton-Mohawk canals and distribution system, and drainage and protective works.

Upon full development, the project will provide irrigation service to 75,000 acres in the Wellton-Mohawk division and 40,000 acres in the Yuma Mesa division, which includes 15,000 acres in the North and South Gila Valleys. In addition to delivery of Colorado River water to the authorized 40,000 acres in the Yuma Mesa division, ground water is pumped and delivered to an additional 1,969 acres in the Mesa unit.

The total estimated cost of constructing the Gila project is \$75,447,874, of which \$13,688,739 is non-reimbursable. All Gila costs except \$5,915,268 for flood control are allocated to irrigation.

The calendar year 1969 acreages and crop values are shown below:

Item	Wellton-Mohawk division	Yuma Mesa division		
		Mesa unit	North Gila unit	South Gila unit
Irrigable acreage for service-----	75,000	20,373	6,231	10,738
Acres irrigated-----	60,124	17,222	5,882	10,232
Gross crop value-----	\$18,875,257	\$9,727,024	\$3,084,746	\$3,992,495
Average per acre-----	\$313.94	\$564.80	\$524.44	\$390.20

The United States operates the Gila desilting works and the Gila Gravity Main Canal. Care, operation, and maintenance of the works are financed both from advanced funds and appropriated operation and maintenance funds.

WELLTON-MOHAWK DIVISION

The reimbursable costs of the direct features of the Wellton-Mohawk division are scheduled for repayment by irrigation. The division's share of project common features also is allocated for repayment by irrigation, other than certain costs of the common features allocated to excess capacity due to reduction in size of the Gila project by the act of July 30, 1947 (61

Stat. 628), which are nonreimbursable pursuant to the act of January 28, 1956 (70 Stat. 5).

Four irrigation blocks with 10-year development periods were established on the Wellton-Mohawk division and transferred to the Wellton-Mohawk Irrigation and Drainage District for care, operation, and maintenance as shown below:

Block No.	Date established	Approximate acreage	Transferred to District
1-----	Oct. 28, 1953-----	22,750	Jan. 1, 1955
2-----	Nov. 3, 1954-----	9,435	Do
3-----	Oct. 28, 1955-----	21,650	Jan. 1, 1956
4-----	Oct. 2, 1957-----	20,300	Jan. 1, 1958

By January 1, 1959, the district had assumed care, operation, and maintenance of all Wellton-Mohawk division facilities.

Repayment contracts.—The maximum repayment obligation of the Wellton-Mohawk Irrigation and Drainage District was \$50,084,732 as of June 30, 1969. This amount was established by contract executed on March 4, 1952, as amended and supplemented by contracts dated June 19, 1954, October 13, 1954, December 16, 1954, April 25, 1955, December 9, 1955, September 1, 1959, March 4, 1962, July 1, 1962, August 2, 1965, and August 15, 1968. The original repayment obligation of \$42,000,000 was to be repaid over a 60-year period to begin December 31, 1963. The September 1, 1959, contract provided for construction of a drainage system with assumption of an additional obligation of \$14,000,000 with repayment spread over a 50-year period to begin December 31, 1973. These amounts were to be allocated among the four irrigation blocks. However, the March 4, 1962, contract combined the above obligations for repayment purposes, eliminated the requirement for allocation among blocks, and rescheduled the repayment over a 55-year period beginning December 31, 1968. The repayment schedule was further revised by the August 15, 1968, amendatory contract, which deferred for 10 years payment by certain parcels of undeveloped land in Federal and State ownership and certain parcels of land in private ownership in various stages of development. In addition, the August 15, 1968, contract implemented a \$5,915,268 nonreimbursable flood control allocation authorized by the act of November 20, 1967 (81 Stat. 471), thus reducing the contracted repayment obligation to \$50,084,732. Repayment by those lands not deferred is still scheduled over a 55-year repayment period which began on December 31, 1968. Those lands receiving a 10-year deferment will begin a 55-year repayment period on December 31, 1978.

Summary of status of repayment contracts:

Total value of contracted repayment	\$50,084,732
Total matured charges	202,752
Total matured charges repaid	202,752
Total matured charges unpaid	0

CONTRACTS

1952, March 4: Contract 11r-1591 with Wellton-Mohawk Irrigation and Drainage District. Established a maximum repayment obligation of \$42 million, to be allocated for repayment among irrigation blocks. Payments were to begin on December 31, 1963, following a 10-year development period for each block at an annual rate of one-

sixtieth of the repayment obligation of the block. (This repayment schedule was revised by the March 4, 1962, amendment.)

- 1954, June 19: Wellton-Mohawk Irrigation and Drainage District, supplemental to March 4, 1952, contract. Deals with the supply and cost to the District of power and energy for project purposes.
- 1954, October 13: Wellton-Mohawk Irrigation and Drainage District, amendatory to March 4, 1952, contract. Provides for termination of incremental value provisions.
- 1954, December 16: Wellton-Mohawk Irrigation and Drainage District, amendatory to March 4, 1952, contract, relative to establishment, operation, and maintenance of irrigation blocks and works.
- 1955, April 25: Wellton-Mohawk Irrigation and Drainage District, supplementary to March 4, 1952, contract, relative to construction of electric facilities, transmission and charge for power.
- 1955, December 9: Wellton-Mohawk Irrigation and Drainage District, supplemental and amendatory to March 4, 1952, contract. Provided for transfer of certain works to the District for operation, and advance of operation and maintenance funds.
- 1959, September 1: Wellton-Mohawk Irrigation and Drainage District, supplemental and amendatory to March 4, 1952, contract. Provided for construction of a drainage system and for an additional repayment obligation of \$14,000,000, to be designated as "drainage repayment obligation." This obligation is to be allocated among irrigation blocks and repaid in 100 semiannual installments, with initial payment due on December 31, 1973.
- 1962, March 4: Wellton-Mohawk Irrigation and Drainage District, supplemental and amendatory to March 4, 1952, contract. Provided for consolidation for repayment purposes of general repayment obligation under March 4, 1952, contract and drainage repayment obligation under September 1, 1959, contract. This consolidated obligation of \$56,000,000 is an obligation of the District as a whole and is not to be allocated by blocks. Repayment is scheduled to begin December 31, 1968, with "base annual installments" established at \$244,320 for the first 6 years, \$366,480 for the next 11 years, and \$1,329,021 (or 1/38th of the balance of the obligation remaining unpaid on December 31, 1985) for the next 38 years. The "base annual installments" are to be adjusted by a "National Parity Adjustment Factor" in accordance with article 11 (b) (iii).
- 1962, July 1: Wellton-Mohawk Irrigation and Drainage District, amendatory to contract dated April 25, 1955, supplementing March 4, 1952 contract, relative to construction of electric facilities, transmission and charge for power.
- 1965, August 2: Wellton-Mohawk Irrigation and Drainage District, amendatory to contract dated March 4, 1952, to permit the District to supply and deliver up to 5,000 acre-feet of water for domestic uses within the boundaries of the District.
- 1968, August 15: Wellton-Mohawk Irrigation and Drainage District, supplemental and amendatory to the March 4, 1952, contract as amended and supplemented, to modify the previously established irrigation blocks by eliminating therefrom certain areas of land and consolidating

those certain areas of land into a new irrigation block (Irrigation Block 5) for the purpose of deferring payment thereon for 10 years and to allocate \$5,915,268 to nonreimbursable flood control. Annual payments will be adjusted as provided under the March 4, 1962 contract.

YUMA MESA DIVISION

The costs allocable to the Yuma Mesa division also are scheduled for repayment by irrigation, aside from \$8,205,579 of Gila project cost made nonreimbursable by act of January 28, 1956 (70 Stat. 5), and the act of November 20, 1967 (81 Stat. 471). A contract was executed on May 26, 1956, with the Yuma Mesa Irrigation and Drainage District, encompassing the Yuma Mesa unit, which established the repayment obligation of the District at \$5,641,167. This amount has been allocated to two irrigation blocks for repayment over a 60-year period following the end of the development period for each block.

On January 1, 1959, the Yuma Mesa Irrigation and Drainage District assumed the care, operation, and maintenance of Yuma Mesa unit irrigation works below the afterbay of the Yuma Mesa Pumping Plant. This included operation but not maintenance of headgates in the Unit B turnout structure for delivery of water to the Yuma Auxiliary project. The District assumed care, operation, and maintenance of the pumping plant on January 1, 1961.

Pursuant to the act of June 13, 1949 (63 Stat. 172), water deliveries to the Yuma Auxiliary project are made through the facilities of the Gila project. By contract of December 22, 1952, with the Unit B Irrigation and Drainage District, the District agreed to repay \$456,090 of Gila project costs for capacity utilized in diverting and carriage of water.

Repayment contracts.—The North Gila Valley Irrigation District, encompassing lands in the North Gila Valley, by contract of May 12, 1953, as amended, assumed a maximum repayment obligation of \$475,000 for its share of Gila project works. The final obligation was established at \$430,277.

The Yuma Irrigation District, encompassing lands in the South Gila Valley, assumed a maximum repayment obligation of \$7,500,000 by contract dated July 23, 1962. The District contains approximately 10,738 irrigable acres for service, of which approximately 8,770 acres of lands will be irrigated from project works, the balance to be irrigated by water supplied from irrigation wells.

PUBLIC NOTICES AND CONTRACTS

1944, July 10: Public notice. Water rental rates \$2 per acre-

foot for Yuma Mesa lands and \$1.25 for North and South Gila Valleys for calendar year 1944, when available.

1944, December 15: Public notice. Water rental rates \$4.50 per acre for Yuma Mesa lands and \$3 per acre for North and South Gila Valleys for calendar year 1945 and thereafter.

1947, March 26: Public notice. Water rental rates \$6 per acre for Yuma Mesa lands and \$3 per acre for North and South Gila Valleys for calendar year 1947 and thereafter for specified lands.

1947, December 10: Public notice, Yuma Mesa division. Land opening and irrigation charges of \$6 per acre.

1948, June 16: Public notice. Water rental charge for North and South Gila Valleys of \$3 per acre.

1952, December 22: Unit B Irrigation and Drainage District, Yuma Auxiliary project. Provided for repayment of \$456,090 of Gila project costs for capacity utilized by the District, and repayment of not to exceed \$510,000 for construction, extension, and improvement of Yuma Auxiliary project works. Repayment for each acre under water right is to be made in 120 equal semiannual installments. The initial payment date was December 1, 1953.

1953, May 12: North Gila Valley Irrigation District. Contract 14-06-W-54 provided for repayment by the District of maximum obligation of \$325,000 in 120 equal semiannual installments, with initial payment due on January 1, 1954.

1954, June 24: Contract 14-06-W-66 with North Gila Valley Irrigation District, amendatory and supplemental to May 12, 1953, contract. Provided for increase in general repayment obligation to \$475,000, and initial payment date was advanced to January 1, 1955.

1956, May 26: Contract 14-06-W-102 with Yuma Mesa Irrigation and Drainage District. Established a maximum repayment obligation of \$5,641,167.45, allocated between two irrigation blocks. Payment began on January 1, 1958, for block 1 and on January 1, 1962, for block 2. Repayment of the total obligation for each block is scheduled over a 60-year period at the rate of one-half of 1 percent annually for the first 10 years, 1 percent annually for the next 10 years, and 2½ percent annually for the last 40 years.

1962, July 23: Contract 14-06-300-1270 with Yuma Irrigation District. Established a maximum repayment obligation of \$7,500,000, to be allocated between blocks if more than one block is established. Repayment for each block is scheduled over a 60-year period, payable semiannually on June 30 and December 31, beginning on December 31, following the expiration of the 5-year development period for each block. Rate of repayment is one-fourth of 1 percent annually for first 10 years, one-half of 1 percent annually for next 10 years, and 1-1/16 percent annually for next 40 years.

1964, December 17: Public notice. Water service and charges prior to establishment of irrigation block set at \$9 per acre on lands in the South Gila Valley unit. Entitled to 5 acre-feet of water per acre, additional water could be purchased at \$3 per acre-foot. Similar notices issued June 30, 1965, December 21, 1966, and September 29, 1967. Public notice dated September 29, 1967, established

the charges at \$9 and \$3 until further notice, thus eliminating the need for issuing a public notice annually.

1966, August 9: Second amendatory and supplemental contract 14-06-300-1862 with North Gila Valley Irrigation District. Provided for delivery of water at a second turnout from the Gila Gravity Main Canal.

1969, February 26: Supplemental and amendatory to contract 14-06-W-102 with Yuma Mesa Irrigation and Drainage District. Provides for reclassification of approximately 400 acres of land within the District and for delivery of Colorado River water to those lands reclassified.

In addition to the foregoing, a number of small miscellaneous water contracts have been executed on the Gila project, which

are summarized separately under the tabulation entitled "Miscellaneous Water Contracts."

The following tabulations on repayment contracts exclude the contract for \$456,090 with the Unit B Irrigation and Drainage District of the Yuma Auxiliary project.

Summary of status of repayment contracts:

Total value of contracted repayment	\$13,571,445
Total matured charges	442,669
Total matured charges repaid	442,669
Total matured charges unpaid	0

GILA PROJECT—MISCELLANEOUS WATER CONTRACTS

Individual or organization	Date of contract	Type of contract	Contract period	Date of initial water deliveries	Rates of payment, per acre-foot
Franeva Farms, Inc. -----	Jan. 1, 1951----	Warren Act ----	Indefinite ----	Jan. 1, 1951----	\$1.30
Neva S. and Frank S. Hartman-----	do-----	do-----	do-----	do-----	1.30
Autumn E. Struve-----	do-----	do-----	do-----	do-----	1.30
E. P. Roy-----	do-----	do-----	do-----	do-----	1.30
Merle and Neva Thomas-----	Jan. 1, 1952----	do-----	do-----	Feb. 1, 1952----	1.30
Delmar and Jane Lewis-----	do-----	do-----	do-----	do-----	1.30
Vesta Thomas-----	do-----	do-----	do-----	do-----	1.30
Ethel Madden-----	do-----	do-----	do-----	do-----	1.30
Ruth B. Thomas-----	do-----	do-----	do-----	do-----	1.30
Harold Sturges-----	do-----	do-----	do-----	do-----	1.30
Roscoe K. Sturges-----	do-----	do-----	do-----	do-----	1.30
Irma B. Sturges-----	do-----	do-----	do-----	None-----	1.30
Virginia B. Landon-----	do-----	do-----	do-----	Feb. 1, 1952----	1.30
Clarence and Lorraine Jones-----	Jan. 1, 1955----	do-----	do-----	May 1955-----	1.30
Desert Lawn Memorial Park Association-----	May 1, 1956----	Miscellaneous purposes ----	do-----	May 1, 1956----	10.00
City of Yuma, Ariz.-----	do-----	do-----	do-----	do-----	10.00
U.S. Department of the Army-----	June 12, 1951----	do-----	do-----	June 12, 1951----	10.00
Southern Pacific Co.-----	Feb. 10, 1953----	do-----	do-----	Jan. 1954-----	10.00
Housing Authority, County of Yuma-----	Nov. 27, 1953----	do-----	do-----	Nov. 27, 1953----	10.00
Ritz Distributing Co.-----	Jan. 1, 1954-----	do-----	do-----	June 1, 1954-----	10.00
Yuma Mesa Fruitgrowers' Association-----	Oct. 1, 1956-----	do-----	do-----	Oct. 1, 1956-----	10.00
County of Yuma, Ariz.-----	June 21, 1957----	do-----	do-----	Jan. 1, 1957-----	10.00
U.S. Department of the Navy (MCAS)-----	Jan. 1, 1959-----	do-----	do-----	Jan. 1, 1959-----	(¹)
Midwest Alfalfa Products, Inc.-----	Dec. 2, 1959-----	do-----	do-----	May 1960-----	(²)
Assigned to Kaman, Inc.-----	Aug. 27, 1968-----	do-----	do-----	do-----	(³)
Southern Pacific Co.-----	Dec. 21, 1959----	do-----	do-----	Jan. 1960-----	(³)
1959 contract amended-----	Oct. 31, 1966----	do-----	do-----	do-----	(⁴)
S. R. Blake-----	Nov. 2, 1967-----	do-----	do-----	Nov. 2, 1967-----	(³)

¹ First 1,000 acre-feet per annum at \$7.50 per acre-foot, plus MCAS furnishing water and sewage disposal for Bureau buildings. All over first 1,000 acre-feet per annum, \$10 per acre-foot.

² Minimum charge of \$100 for 2 acre-feet per year.

³ Minimum charge of \$100 for 10 acre-feet per year.

⁴ Minimum charge of \$200 for 20 acre-feet per year.

CONSTRUCTION REPAYMENT HISTORY—WELLTON—MOHAWK IRRIGATION AND DRAINAGE DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative Total
1969-----	\$50,084,732	\$202,752	-----	\$202,752	\$202,752	-----	\$202,752	\$202,752
Total -----	-----	202,752	-----	202,752	202,752	-----	202,752	-----

CONSTRUCTION REPAYMENT HISTORY—NORTH GILA VALLEY IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1955-----	\$475,000	\$7,917	-----	\$7,917	\$7,917	-----	\$7,917	\$7,917
1956-----	475,000	7,916	-----	7,916	7,916	-----	7,916	15,833
1957-----	475,000	7,917	-----	7,917	7,917	-----	7,917	23,750
1958-----	475,000	7,917	-----	7,917	7,917	-----	7,917	31,667
1959-----	475,000	7,916	-----	7,916	3,434	-----	3,434	35,101
1960-----	475,000	7,917	-----	7,917	10,305	-----	10,305	45,406
1961-----	475,000	7,917	-----	7,917	6,869	-----	6,869	52,275
1962-----	475,000	7,916	-----	7,916	6,870	-----	6,870	59,145
1963-----	¹ 430,277	7,483	-----	7,483	6,435	-----	6,435	65,580
1964-----	430,277	7,048	-----	7,048	6,001	-----	6,001	71,581
1965-----	430,277	7,048	-----	7,048	6,001	-----	6,001	77,582
1966-----	430,277	7,048	-----	7,048	5,691	-----	5,691	83,273
1967-----	430,277	7,049	-----	7,049	6,311	-----	6,311	89,584
1968-----	430,277	7,048	-----	7,048	16,473	-----	16,473	106,057
1969-----	430,277	7,048	-----	7,048	7,048	-----	7,048	113,105
Total -----	-----	113,105	-----	113,105	113,105	-----	113,105	-----

¹ Obligation decreased due to determination of final general repayment obligation.

CONSTRUCTION REPAYMENT HISTORY—YUMA MESA IRRIGATION AND DRAINAGE DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1958-----	\$5,641,167	\$17,320	-----	\$17,320	\$17,320	-----	\$17,320	\$17,320
1959-----	5,641,167	17,319	-----	17,319	17,319	-----	17,319	34,639
1960-----	5,641,167	17,320	-----	17,320	17,320	-----	17,320	51,959
1961-----	5,641,167	17,319	-----	17,319	16,670	¹ \$66,626	83,296	135,255
1962-----	5,641,167	28,206	-----	28,206	27,869	-----	27,869	163,124
1963-----	5,641,167	28,206	-----	28,206	27,868	-----	27,868	190,992
1964-----	5,641,167	28,206	-----	28,206	27,869	-----	27,869	218,861
1965-----	5,641,167	28,206	-----	28,206	27,868	-----	27,868	246,729
1966-----	5,641,167	28,206	-----	28,206	27,869	-----	27,869	274,598
1967-----	5,641,167	28,206	-----	28,206	27,868	-----	27,868	302,466
1968-----	5,641,167	45,525	-----	45,525	44,864	-----	44,864	347,330
1969-----	5,641,167	45,525	-----	45,525	44,863	-----	44,863	392,193
Total Collected -----	-----	329,564	-----	329,564 392,193	325,567	66,626	392,193	-----
Excess ¹ -----	-----	-----	-----	62,629	-----	-----	-----	-----

¹ Collection from Department of the Navy under contract 14-06-300-1051, dated Sept. 22, 1960, covering construction charges on irrigable lands within the District which were acquired by the Navy. Excess to be applied over remaining years of repayment contract in an amount equivalent to yearly accrual on the lands which were acquired by the Navy. Difference between each year's "Accruals" and "Collections" are credits applied in accordance with exhibit "B" of contract 14-06-300-1051.

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—GILA PROJECT

Fiscal year	Irrigation and Drainage Districts						Investment repayment ²	
	North Gila Valley	Yuma Mesa ¹		Wellton-Mohawk		Total	Maximum contract obligation	Interest free balance to be repaid
		Block 1	Block 2	Blocks 1-4	Block 5			
Subtotal	\$113,105	\$242,475	\$87,089	\$202,752	-----	\$645,421	\$56,156,176	\$55,510,755
1970	7,048	34,639	10,886	225,280	0	277,853	56,156,176	55,232,902
1971	7,049	34,639	10,886	225,280	0	277,854	56,156,176	54,955,048
1972	7,048	34,639	16,329	225,280	0	283,296	56,156,176	54,671,752
1973	7,048	34,639	21,773	225,280	0	288,740	56,156,176	54,383,012
1974	7,048	34,639	21,773	337,930	0	401,390	56,156,176	53,981,622
1975	7,049	34,639	21,773	337,930	0	401,391	56,156,176	53,580,231
1976	7,048	34,639	21,773	337,930	0	401,390	56,156,176	53,178,841
1977	7,048	34,639	21,773	337,930	0	401,390	56,156,176	52,777,451
1978	7,048	54,124	21,773	337,930	\$19,040	439,915	56,156,176	52,337,536
1979	7,049	73,608	21,773	337,930	19,040	459,400	56,156,176	51,878,136
1980	7,048	73,608	21,773	337,930	19,040	459,399	56,156,176	51,418,737
1981	7,048	73,608	21,773	337,930	19,040	459,399	56,156,176	50,959,338
1982	7,048	73,608	34,020	337,930	19,040	471,646	56,156,176	50,487,692
1983	7,049	73,608	46,267	337,930	19,040	483,894	56,156,176	50,003,798
1984	7,048	73,608	46,267	337,930	28,550	493,403	56,156,176	49,510,395
1985	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	48,266,447
1986	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	47,022,499
1987	7,049	73,608	46,267	1,088,475	28,550	1,243,949	56,156,176	45,778,550
1988	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	44,534,602
1989	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	43,290,654
1990	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	42,046,706
1991	7,049	73,608	46,267	1,088,475	28,550	1,243,949	56,156,176	40,802,757
1992	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	39,558,809
1993	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	38,314,861
1994	7,048	73,608	46,267	1,088,475	28,550	1,243,948	56,156,176	37,070,913
1995	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	35,764,111
1996	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	34,457,310
1997	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	33,150,509
1998	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	31,843,708
1999	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	30,536,906
2000	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	29,230,105
2001	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	27,923,304
2002	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	26,616,503
2003	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	25,309,701
2004	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	24,002,900
2005	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	22,696,099
2006	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	21,389,298
2007	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	20,082,496
2008	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	18,775,695
2009	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	17,468,894
2010	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	16,162,093
2011	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	14,855,291
2012	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	13,548,490
2013	7,048	73,608	46,267	1,088,475	91,403	1,306,801	56,156,176	12,241,689
2014	7,049	73,608	46,267	1,088,475	91,403	1,306,802	56,156,176	10,934,887
2015	-----	73,608	46,267	1,088,475	91,403	1,299,753	56,156,176	9,635,134
2016	-----	73,608	46,267	1,088,475	91,403	1,299,753	56,156,176	8,335,381
2017	-----	73,608	46,267	1,088,475	91,403	1,299,753	56,156,176	7,035,628
2018	-----	19,484	46,267	1,088,475	91,403	1,245,629	56,156,176	5,789,999
2019	-----	-----	46,267	1,088,475	91,403	1,226,145	56,156,176	4,563,854
2020	-----	-----	46,267	1,088,475	91,403	1,226,145	56,156,176	3,337,709
2021	-----	-----	46,267	1,088,475	91,403	1,226,145	56,156,176	2,111,564
2022	-----	-----	17,680	1,088,454	91,403	1,197,537	56,156,176	914,027
2023	-----	-----	-----	-----	91,403	91,403	56,156,176	822,624
2024	-----	-----	-----	-----	91,403	91,403	56,156,176	731,221
2025	-----	-----	-----	-----	91,403	91,403	56,156,176	639,818
2026	-----	-----	-----	-----	91,403	91,403	56,156,176	548,415
2027	-----	-----	-----	-----	91,403	91,403	56,156,176	457,012
2028	-----	-----	-----	-----	91,403	91,403	56,156,176	365,609
2029	-----	-----	-----	-----	91,403	91,403	56,156,176	274,206
2030	-----	-----	-----	-----	91,403	91,403	56,156,176	182,803
2031	-----	-----	-----	-----	91,403	91,403	56,156,176	91,400
2032	-----	-----	-----	-----	91,400	91,400	56,156,176	0
Total	430,277	3,463,907	2,177,260	46,183,131	3,901,601	56,156,176	-----	-----

¹ Amounts shown are base annual installments which are subject to adjustment in accordance with article 11(b)(iii) of contract Ilr 1591, as amended August 15, 1968.

² Does not include \$7,500,000 obligation of Yuma Irrigation District as beginning date of payment has not been established as of June 30, 1969.

GILA PROJECT COST AND REPAYMENT SUMMARY

Item	Total project	Irrigation				Flood control
		Yuma Mesa division	Wellton-Mohawk division	Yuma Auxiliary project	Other costs ¹	Wellton-Mohawk division
Irrigation plant -----	\$48,581,768	\$6,730,936	\$40,105,893	\$465,080	\$1,279,859	
Flood control plant -----	5,915,268					\$5,915,268
Construction work in progress -----	5,231,445	4,844,914	386,531			
Replace cast-in-place pipe -----	965,777	965,777				
Estimate to complete -----	9,516,230	1,892,346	7,623,884			
Replace cast-in-place pipe -----	1,234,223	1,234,223				
Other physical property -----	189,708		189,708			
Subtotal plant -----	71,634,419	15,668,196	48,306,016	465,080	1,279,859	5,915,268
Corollary construction costs -----	3,813,455	591,610	859,458		2,362,387	
Subtotal, construction cost -----	75,447,874	16,259,806	49,165,474	465,080	3,642,246	5,915,268
Costs assumed from All-American Canal System -----	1,664,247	312,588	507,955	39,073	804,631	
O and M deficit funded -----	618,757	343,688	275,069			
Total -----	77,730,878	16,916,082	49,948,498	504,153	4,446,877	5,915,268
Repayment and other credits:						
Repayment contracts -----	63,656,177	13,571,445	50,084,732			
Repayments from other sources -----	224,889	137,411	87,478			
Excess of income over expense -----	269,424	105,763	150,702	12,959		
Contributions -----	15,773	15,773				
Subtotal repayment -----	64,166,263	13,830,392	50,322,912	12,959		
Repayment obligation transferred -----	456,090			456,090		
Nonreimbursable:						
Replace cast-in-place pipe -----	2,200,000	2,200,000				
Acreage eliminated, 1947 ² -----	1,888,379				1,888,379	
Yuma Mesa Act, 1957 -----	3,059,179	1,931,225			1,127,954	
Dust control, 1957 act -----	1,058,021				1,058,021	
Air Force funds -----	372,523				372,523	
Flood control -----	5,915,268					5,915,268
Total -----	79,115,723	17,961,617	50,322,912	469,049	4,446,877	5,915,268
Excess repayment and other credits over cost -----	1,384,845	1,045,535	374,414	(35,104)		

¹ By special survey of Dec. 31, 1956, pursuant to act of Jan. 28, 1956 (70 Stat. 5), and due in part to reduction in project area by act of July 30, 1947 (61 Stat. 628), certain costs were determined to be nonrecoverable.

Costs allocated to acreage eliminated from project \$1,888,379
Excess cost of land predevelopment 1,127,954
Dust control 1,058,021
Cost allocated to Yuma Mesa not assumed by contracting entities 1,931,225

Total 6,005,579

² Excludes O&M loss on excess stores—\$14,235.

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	North Gila Valley Irrigation District		Wellton-Mohawk Irrigation and Drainage District		Yuma Mesa Irrigation and Drainage District	
	Accruals	Collections	Accruals	Collections	Accruals	Collections
1955 -----	\$5,745	\$5,745				
1956 -----	5,681	5,681	\$63,652	\$63,652		
1957 -----	9,191	9,191	117,800	117,800		
1958 -----	8,989	8,989	159,740	159,740	\$254,300	\$254,300
1959 -----	14,219	14,219	9,472	9,472	80,825	80,825
1960 -----	13,522	13,522	37,695	37,695	107,270	107,270
1961 -----	10,270	10,270	48,105	48,105	44,173	48,475
1962 -----	12,909	12,909	52,963	52,963	41,250	36,948
1963 -----	13,380	13,380	73,275	73,275	35,013	35,013
1964 -----	10,399	10,399	70,071	70,071	29,287	29,287
1965 -----	10,605	10,605	48,708	48,708	25,164	25,164
1966 -----	14,628	14,628	76,524	76,524	38,498	38,498
1967 -----	18,172	18,172	90,496	90,496	36,379	36,379
1968 -----	12,457	12,457	83,476	83,476	28,859	28,859
1969 -----	13,368	13,368	94,545	94,545	38,323	38,323
Total -----	173,535	173,535	1,026,522	1,026,522	759,341	759,341

GRAND VALLEY PROJECT

COLORADO

The Grand Valley project, located near Grand Junction in Mesa County, Colo., was examined and reported upon by a board of Army Engineers in accordance with the act of June 25, 1910 (36 Stat. 835), and approved by the President on January 5, 1911.

The project features include the diversion dam and headworks on the Colorado River, a distribution system consisting of 70 miles of main canal including the Orchard Mesa Canal and 166 miles of laterals, and a pumping plant to serve lands above gravity diversions. Other project features consist of 142 miles of open drains and a powerplant of 3,000-kilowatt capacity. The constructed features serve 33,510 acres under the Garfield Gravity and Orchard Mesa divisions and 8,580 acres in the Palisade and Mesa County Irrigation Districts. The project consists of the Garfield Gravity division, which was the original project, the Mesa County and Palisade Irrigation Districts, Warren Act contractors, and the Orchard Mesa division.

Operation and maintenance of the Grand Valley project facilities were taken over by the Grand Valley Water Users Association on January 1, 1949, except those of the Orchard Mesa division and the powerplant. The powerplant is operated by the Public Service Co. of Colorado, and the Orchard Mesa division is operated by the Orchard Mesa Irrigation District.

The present irrigable area for service is 42,090 acres, with 32,871 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 is \$7,622,438 and \$231.89, respectively.

GARFIELD GRAVITY DIVISION

The total cost of the Garfield Gravity division, including rehabilitation and betterment costs, is \$5,996,597. The reimbursable portion is \$3,898,061; the nonreimbursable portion is comprised of Civilian Conservation Corps costs of \$291,300, adjustment surveys of \$4,672, and chargeoffs under the Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), and Public

Law 88-43 in the total amount of \$1,944,143. A powerplant for this project was built on an irrigation canal constructed to carry a flow of 800 cubic feet per second. From April through October, 400 cubic feet per second are used for irrigation purposes and 400 cubic feet per second for generation of electric energy. The rest of the year 800 cubic feet per second may be used for generating purposes. This powerplant was constructed with funds (\$210,500) advanced by the Public Service Co. of Colorado. The company operated the plant and paid \$12,000 a year to the United States under the June 19, 1931, contract, this amount being credited to the annual installment on construction features, payment to be made for a period of 25 years. The contract was renewed July 2, 1959, and further extended by the contract of December 30, 1960. The power company paid a minimum of \$3,360 annually for the operation and maintenance of that portion of the canal system that delivers power water. Under the 1960 contract, the Company pays the Association $2\frac{1}{4}$ mills for each kilowatt-hour of net generation.

Public Law 88-43, signed by the President June 21, 1963, authorizes a deduction of \$113,690.12 from the repayment obligation charges against lands now classified unproductive, and crediting the next annual installment the sum of \$4,531.93, which represents construction charges paid on canceled farm units.

Rehabilitation and betterment.—A resume of the rehabilitation and betterment work performed on certain Garfield Gravity division works is presented by the contracts listed below. Repayment commenced in 1954 and is scheduled for completion in 2022.

CONTRACTS

1913, February 13: Agreement with Grand Valley Water Users Association, guaranteeing repayment of construction costs by the Association.

1928, January 4: Contract 11r-644 with Grand Valley Water Users Association. Association assumed obligation to

- repay \$1,938,571 project construction cost in 40 graduated annual installments.
- 1930, January 10: Supplemental contract Ilr-644, expenditures for drains increased and to include reconstruction of certain structures.
- 1931, June 19: Contract Ilr-648 with the United States, Grand Valley Water Users Association, and the Public Service Co. of Colorado. The Public Service Co. advanced funds to build a 3,000-kilowatt powerplant on the project, paying the Association \$12,000 annually for 25 years to be applied on project construction costs.
- 1931, September 9: Supplemental contract Ilr-644 amends the contract of January 4, 1928, by providing for continued operation by the United States of facilities.
- 1934, February 27: Supplemental contract Ilr-644 provides for moratorium of construction payment to apply on operation and maintenance.
- 1936, March 10: Supplemental contract Ilr-644 provides for continuation of operation and maintenance by the United States.
- 1942, February 7: Supplemental contract provides for rehabilitation and betterment of Tunnel No. 3 for an estimated \$50,000.
- 1942, February 9: Supplemental contract provides for postponement of the transfer of operation and maintenance to the Association.
- 1942, March 27: Amendatory contract Ilr-644 with the Grand Valley Water Users Association covers rehabilitation costs of \$75,000 on Tunnel No. 3, to be repaid in 26 equal annual installments.
- 1945, January 27: Amendatory contract Ilr-644 with the Grand Valley Water Users Association supersedes the contracts between the United States and the Association dated February 13, 1913; January 4, 1928; January 10, 1930; September 9, 1931; March 10, 1936; February 7, 1942; February 9, 1942; and March 27, 1942. Unaccrued balance of obligation under the 1928 and the 1942 contracts to be paid in 58 semiannual installments, the first 30 installments of \$17,606 and the last 28 installments of \$35,210 to be paid in June and December of each year.
- 1950, March 3: Contract Ilr-1567 with Grand Valley Water Users Association. Emergency repairs and rehabilitation of project works. Estimated obligation was \$1,500,000 to be repaid in 58 years, with first installment due in 1954, the first 20 annual installments to be token payments until the 1945 contractual payments are completed, the balance of the indebtedness to be repaid in 38 annual installments of \$33,500.
- 1951, March 5: Amendatory contract Ilr-1567 with the Grand Valley Water Users Association amends the 1950 contract, increasing the total obligation to \$1,900,000.
- 1957, September 23: Contract 14-06-400-673 among the United States, Grand Valley Water Users Association, and Orchard Mesa Division for the rehabilitation and betterment of joint facilities not to exceed \$500,000, of which 71.93 percent is to be paid by the Association and 28.07 percent by the District.
- 1959, July 2: Contract 14-06-400-987 among the United States, Grand Valley Water Users Association, and the Public Service Co. of Colorado provides for extension of the June 19, 1931, contract No. Ilr-648 for the operation of the powerplant by the company until December 31, 1960.
- 1960, December 30: Contract 14-06-400-1323 among the United States, the Grand Valley Water Users Association, and the Public Service Co. of Colorado provides for the continuation of operation of the powerplant by the Public Service Co. of Colorado after expiration of the July 2, 1959, contract, with revenues being applied on the obligation of the Association in accordance with the act of July 12, 1960, and the contract of January 27, 1945.
- 1964, April 27: Supplemental contract Ilr-644 with the Grand Valley Water Users Association authorizes a modification of the construction obligation by reducing it \$109,158.19, crediting the Association \$4,531.93 on the next installment, and provides for levying by the Association of equitable but unequal assessments against the shareholders.

The status of the Garfield Gravity division repayment on June 30, 1969, is as follows:

Total value of contracted repayment	\$3,839,056
Total matured charges	1,785,747
Total matured charges repaid	1,785,747
Total matured charges unpaid	0

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—GARFIELD GRAVITY DIVISION

Fiscal year	Accruals	Collections
1928-----	\$47,562	\$44,715
1929-----	50,438	43,285
1930-----	50,000	53,000
1931-----	47,500	49,500
1932-----	45,000	39,000
1933-----	24,115	28,630
1934-----	44,058	47,428
1935-----	49,843	52,958
1936-----	49,696	48,196
1937-----	48,872	50,372
1938-----	49,948	49,948
1939-----	49,963	49,963
1940-----	49,995	49,995
1941-----	47,760	42,860
1942-----	43,132	43,432
1943-----	49,203	53,803
1944-----	62,000	62,000
1945-----	54,771	54,771
1946-----	63,444	63,444
1947-----	72,819	72,819
1948-----	79,377	79,377
1949-----	27,500	27,500
Total-----	1,106,996	1,106,996

CONSTRUCTION REPAYMENT HISTORY—GARFIELD GRAVITY DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1930	\$3,074,816							
1931	3,074,816	¹ \$80,238		\$80,238	\$69,284		\$69,284	\$69,284
1932	3,074,816	¹ 26,706		26,706	0	\$9,496	9,496	78,780
1933	3,074,251	² 0	³ \$26,706	³ 26,706	0		0	78,780
1934	3,077,040	² 10,169		10,169	10,169	1,458	11,627	90,407
1935	3,079,719	² 8,790		8,790	8,790		8,790	99,197
1936	3,077,165	² 10,898		10,898	10,898		10,898	110,095
1937	3,077,209	² 17,702		17,702	17,702		17,702	127,797
1938	3,077,209	35,480		35,480	35,480		35,480	163,277
1939	3,077,209	35,503		35,503	31,603		31,603	194,880
1940	3,077,209	35,666		35,666	35,150	3,900	39,050	233,930
1941	3,077,209	35,812		35,812	31,812	517	32,329	266,259
1942	3,077,209	45,096		45,096	34,420	4,000	38,420	304,679
1943	3,150,948	45,139	⁴ 10,000	35,139	35,139	676	35,815	340,494
1944	3,150,948	45,188		45,188	40,988	10,000	50,988	391,482
1945	3,155,323	45,188		45,188	43,611	4,200	47,811	439,293
1946	3,155,323	35,213		35,213	35,213	1,576	36,789	476,082
1947	3,155,323	35,212		35,212	35,212		35,212	511,294
1948	3,155,323	35,212		35,212	35,212		35,212	546,506
1949	3,155,323	35,212		35,212	23,030		23,030	569,536
1950	4,655,323	35,394		35,394	35,394	12,182	47,576	617,112
1951	5,055,323	35,394		35,394	35,394		35,394	652,506
1952	5,055,323	35,703		35,703	35,703		35,703	688,209
1953	⁵ 4,813,651	35,703		35,703	35,703		35,703	723,912
1954	⁵ 4,333,286	41,933		41,933	41,933		41,933	765,845
1955	⁶ 4,283,036	46,696		46,696	46,696		46,696	812,541
1956	⁵ 3,782,642	46,611		46,611	46,611		46,611	859,152
1957	3,782,642	46,941		46,941	46,941		46,941	906,093
1958	⁶ 3,998,432	47,268		47,268	47,268		47,268	953,361
1959	3,998,432	43,269		43,269	43,269		43,269	996,630
1960	3,998,432	39,268		39,268	39,268		39,268	1,035,898
1961	3,998,432	74,476		74,476	74,476		74,476	1,110,374
1962	⁷ 3,952,746	74,482		74,482	74,482		74,482	1,184,856
1963	⁸ 3,839,056	94,489		94,489	94,489		94,489	1,279,345
1964	3,839,056	88,730		88,730	88,730		88,730	1,368,075
1965	3,839,056	81,608		81,608	81,608		81,608	1,449,683
1966	3,839,056	81,901		81,901	81,901		81,901	1,531,584
1967	3,839,056	81,901		81,901	81,901		81,901	1,613,485
1968	3,839,056	90,361		90,361	90,361		90,361	1,703,846
1969	3,839,056	81,901		81,901	81,901		81,901	1,785,747
Total		1,822,453	-36,706	1,785,747	1,737,742	48,005	1,785,747	

¹ Accruals for calendar years 1927 to 1930, inclusive.² Moratorium period acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$28,374; 1932, \$33,430; 1933, \$28,120; 1934, \$26,475; 1935, \$24,482; 1936, \$17,746.³ Decreases cover amounts deferred under relief acts.⁴ \$10,000 deferred for calendar year 1941, act of Aug. 4, 1939.⁵ Decrease. Chargeoff under act of May 25, 1926 (44 Stat. 638).⁶ Increase. Rehabilitation and betterment contract estimate.⁷ Decrease. Rehabilitation and betterment actual cost.⁸ Decrease. Public Law 88-43, 88th Cong.

ORCHARD MESA DIVISION

On February 18, 1922, the Orchard Mesa Irrigation District contracted with the United States and the Grand Valley Water Users Association for the reconstruction of its irrigation facilities and for provision of water through the Association's facilities. The cost of this work, together with rehabilitation and betterment contracts, is \$1,996,033 and is fully reimbursable under the terms of the repayment contracts. The Orchard Mesa Division of the project provides water to 10,027 acres and is operated by the District.

Rehabilitation and betterment.—A resume of the rehabilitation and betterment work performed on certain Orchard Mesa division works is presented by the contracts listed below.

CONTRACTS

1922, February 18: Orchard Mesa Irrigation District contract for reconstruction of District's irrigation system. Estimated cost \$1,000,000, payable in 20 graduated annual installments.

1931, September 10: Repayment period extended to 40 years.
1955, October 4: Contract 14-06-400-325 with Orchard Mesa

Irrigation District for rehabilitation and betterment of division's works at a cost of not to exceed \$180,000 and to be repaid in six equal installments commencing in 1970.

1955, October 4: Contract 14-06-400-326 amendatory, supersedes contracts dated February 18, 1922, and September 10, 1931.

1957, September 23: Contract 14-06-400-673 (see listing under Garfield Gravity division).

1961, August 17: Contract 14-06-400-1939 with the Orchard Mesa Irrigation District for rehabilitation and betterment of project facilities at an estimated cost of \$750,000. Repayment to be \$1,200 each year, commencing in 1967

and continuing until final payment under contracts of October 4, 1955, or September 23, 1957, is made, whichever final payment occurs last. Thereafter, \$31,200 shall be paid until paid in full.

The status of the Orchard Mesa division repayment on June 30, 1969, is as follows:

Total value of contracted repayment	\$1,996,032
Total matured charges	1,004,536
Total matured charges repaid	1,004,536
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—ORCHARD MESA DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$1,000,000							
1924	1,000,000							
1925	1,000,000							
1926	1,000,000							
1927	1,000,000							
1928	999,768	\$19,995		\$19,995	\$17,224		\$17,224	\$17,224
1929	999,768	19,995		19,995	8,906	\$2,772	11,678	28,902
1930	999,768	19,996		19,996	4,062	11,089	15,151	44,053
1931	999,768	19,995		19,995	0	14,441	14,441	58,494
1932	999,768	² 15,000	¹ \$19,995	¹ 4,995	15,000	1,492	16,492	74,986
1933	999,768	² 0	¹ 15,000	² 15,000	0	¹ 15,000	¹ 15,000	59,986
1934	1,001,229	² 0		0	0		0	59,986
1935	1,002,616	² 0		0	0		0	59,986
1936	1,001,315	² 0		0	0		0	59,986
1937	1,001,340	² 10,000		10,000	10,000		10,000	69,986
1938	1,001,340	20,000		20,000	20,000		20,000	89,986
1939	1,001,340	20,000		20,000	17,249		17,249	107,235
1940	1,001,340	20,000		20,000	20,000	2,751	22,751	129,986
1941	1,001,340	25,000		25,000	25,000		25,000	154,986
1942	1,001,340	25,000		25,000	25,000		25,000	179,986
1943	1,001,340	25,000		25,000	25,000		25,000	204,986
1944	1,001,340	25,000		25,000	25,000		25,000	229,986
1945	1,001,340	25,000		25,000	25,000		25,000	254,986
1946	1,001,340	29,922		29,922	29,922		29,922	284,908
1947	1,001,340	29,922		29,922	29,922		29,922	314,830
1948	1,001,340	29,922		29,922	29,922		29,922	344,752
1949	1,004,840	29,922		29,922	29,922		29,922	374,674
1950	1,004,840	29,922		29,922	29,922		29,922	404,596
1951	1,004,840	29,922		29,922	29,922		29,922	434,518
1952	1,004,840	29,922		29,922	29,922		29,922	464,440
1953	1,004,840	29,922		29,922	29,922		29,922	494,362
1954	1,004,840	29,922		29,922	29,922		29,922	524,284
1955	1,004,840	29,922		29,922	29,922		29,922	554,206
1956	1,184,840	29,921		29,921	29,921		29,921	584,127
1957	1,184,840	29,922		29,922	29,922		29,922	614,049
1958	³ 1,268,177	29,922		29,922	29,922		29,922	643,971
1959	1,268,177	29,922		29,922	29,922		29,922	673,893
1960	1,268,177	29,922		29,922	29,922		29,922	703,815
1961	1,268,177	29,921		29,921	29,921		29,921	733,736
1962	³ 2,000,348	29,922		29,922	29,922		29,922	763,658
1963	2,000,348	39,494		39,494	39,494		39,494	803,152
1964	2,000,348	35,479		35,479	35,479		35,479	838,631
1965	2,000,348	32,701		32,701	32,701		32,701	871,332
1966	2,000,348	32,701		32,701	32,701		32,701	904,033
1967	1,990,012	32,701		32,701	32,701		32,701	936,734
1968	1,995,886	33,901		33,901	33,901		33,901	970,635
1969	1,996,032	33,901		33,901	33,901		33,901	1,004,536
Total		1,039,531	-34,995	1,004,536	986,991	17,545	1,004,536	

¹ Decreases cover amounts deferred under relief acts.² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$15,937; 1932, \$15,487; 1933, \$15,037; 1934, \$15,037; 1935, \$20,049; 1936, \$10,025.³ Increase: rehabilitation and betterment.

MESA COUNTY AND PALISADE IRRIGATION DISTRICTS

WARREN ACT CONTRACTS

Pursuant to the act of February 21, 1911, the Mesa County Irrigation District and the Palisade Irrigation District entered into contracts with the United States whereby their water would be carried in project facilities.

CONTRACTS

1918, May 31: Contract Ilr-468 with the Palisade Irrigation District for the carriage of District water pursuant to the Act of February 21, 1911 (36 Stat. 925). The District agrees to pay \$5,950 each year to apply on the Grand Valley Water Users Association's repayment obligation.

1918, June 10: Contract Ilr4, with the Mesa County Irrigation District for the carriage of District water pursuant to the Act of February 21, 1911 (36 Stat. 925). The District agrees to pay \$4,800 annually to the Grand Valley Water Users Association's repayment obligation, plus \$2 per acre for each acre entered under the Reclamation Act.

1920, April 1: Supplemental agreement, contract Ilr-468, with the Palisade Irrigation District provides for the payment of \$25 per year by the United States to the District for taking care of excess water required by pumping plant.

1925, May 19: Supplemental contract Ilr-468 with the Palisade Irrigation District, \$75 payment per year to the United States for additional turnouts.

1938, April 14: Supplemental contract Ilr-468, provides \$15 payment per year to the United States for additional turnouts.

STATEMENT OF PROJECT COST AND REPAYMENT—GRAND VALLEY

	Irrigation		Power	Total ¹
	Gravity division	Orchard Mesa division		
<i>Costs</i>				
Plant, property, and equipment-----	\$5,991,601	\$66,382	\$213,669	\$6,272,452
Corollary construction costs:				
Rehabilitation and betterment-----		1,929,651		1,929,651
Property transfers-----	324			324
Nonreimbursable expense-----	4,672			4,672
Investigations-----				12,077
Total construction cost-----	5,996,597	1,996,033	213,669	8,219,176
Other charges:				
O&M deficit-----	138,621			138,621
Interest and penalties-----	2,958			2,958
Total-----	6,138,176	1,996,033	213,669	8,360,755
Allocation:				
Reimbursable costs				
Irrigation-----	3,898,061	1,966,033		5,894,094
Power-----			213,669	213,669
Total-----	3,898,061	1,996,033	213,669	6,107,763
Nonreimbursable costs:				
Chargeoffs authorized-----	1,944,143			1,944,143
Civilian Conservation Corps costs-----	291,300			291,300
Other-----	4,672			4,672
Total-----	2,240,115			2,240,115
<i>Repayments and other credits</i>				
Repayment realized:				
Repayment contracts matured-----	1,785,747			1,785,747
Investment matured or amortized-----		1,004,536		1,004,536
Contributions-----			210,500	211,300
Land sales-----	4,937			17,014
Miscellaneous income-----	54,068		3,169	57,237
Subtotal repayment realized-----	1,844,752	1,004,536	213,669	3,075,834
Anticipated future repayment:				
Repayment contracts unmaturred-----	2,053,309	66,382		2,119,691
Investment unmaturred or unamortized-----		925,115		925,115
Subtotal repayment anticipated-----	2,053,309	991,497		3,044,806
Subtotal repayment-----	3,898,061	1,996,033	213,669	6,120,640
Other credits:				
Repayment reduction authorized-----	1,944,143			1,944,143
Nonreimbursable expenses-----	4,672			4,672
Nonreimbursable plant deductions CCC-----	291,300			291,300
Subtotal other credits-----	2,240,115			2,240,115
Total repayment and other credits-----	6,138,176	1,996,033	213,669	8,360,755

¹ Includes \$12,077 for investigations of future development in Garfield Pumping division and \$800 contributions.

GRANTS PASS PROJECT

OREGON

The Interior Department Appropriation Act of 1950 (October 12, 1949, 63 Stat. 765), authorized the emergency reconstruction of the Northwest unit pipeline of the Grants Pass Irrigation District in Jackson and Josephine Counties in southwestern Oregon as part of the Deschutes project by appropriating \$100,000 for the work.

The Grants Pass Irrigation District, located in the valley of Rogue River in southwestern Oregon near the city of Grants Pass, was organized January 1917. The irrigation system provides for direct diversion from Savage Rapids Dam into a gravity flow main canal and into two highline canals through direct connected hydraulic turbine pumps. In 1969, the irrigable area for service was 10,081 acres and the irrigated area 7,356 acres. Most of these lands are used for part-time and residential purposes in and near the city of Grants Pass. The gross value of crops produced on the project during 1969 was \$687,284 and the average value per irrigated acre was \$93.43.

The \$100,000 was expended on the construction of a pipeline under the bed of the Rogue River to replace flood-damaged lines across the river which had to be removed at the end of each irrigation season and replaced each spring, and the replacement of deteriorated adjacent pipelines. The entire amount is allocated to irrigation and repayable by project water users. Work was started and completed during fiscal year 1950 on an emergency basis, after negotiation of a suitable repayment contract with the District.

Prior to completion of work on the pipeline, it was apparent that major repairs were needed on Savage Rapids Dam. The Interior Department Appropriation Act of 1953 (July 9, 1952, 66 Stat. 445) authorized this work by providing \$700,000 for fiscal year 1953. This work was started March 16, 1953, and substantially completed February 22, 1955. Actual costs totaled \$708,795. The Interior Department Appropria-

tion Act of 1957 (July 2, 1956, 70 Stat. 474) provided nonreimbursable funds for fish protective facilities at the dam. Actual expenses totaled \$210,779.

The Grants Pass Irrigation District operates the project works.

Payout schedule.—Repayment of rehabilitation work began in 1953 and will be completed in 2006. Annual installments are due December 31.

CONTRACTS AND NOTICES

- 1949, December 16: Contract IIR-1553 with Grants Pass Irrigation District, not to exceed \$100,000. The irrigable acreage on date of contract was 10,370 acres.
- 1951, December 29: Notice of actual construction cost from Acting Secretary of Interior, \$100,000, 40 annual installments, \$2,500 each, commencing in fiscal year 1953.
- 1952, December 12: Contract 14-06-100-43 with Grants Pass Irrigation District, not to exceed \$850,000, for rehabilitation of Savage Rapids Dam. Repayment period will extend for about 55 years. Annual payments are fixed until the District elects to apply a modified normal and percentage plan specified in the contract.
- 1957, December 23: Notice of actual construction cost of rehabilitating Savage Rapids Dam from Acting Regional Director, \$708,795, payable in 48 annual installments commencing in fiscal year 1959.
- 1962, October 17: Notice from Acting Regional Director covering full payment (\$18,532) of outstanding obligation on 252.03 acres of land excluded for highway right-of-way. Remaining installments reduced accordingly.

Statement of cost and repayment:

Cost:

Fish protective facilities	\$210,779
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Corollary costs:

Rehabilitation and betterment:

Northwest unit pipeline	100,000
Savage Rapids Dam	708,795

Total project cost	1,019,574
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Repayment:

Repayment realized—Repayment contracts	125,583
Future repayments—Repayment contracts	683,212
Total repayments	808,795

Other credits:

Nonreimbursable expenses—Fish protective facilities	210,779
Total repayments and other credits	1,019,574

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1953-----	\$950,000	\$2,500	-----	\$2,500	\$2,500	-----	\$2,500	\$2,500
1954-----	950,000	2,500	-----	2,500	2,500	-----	2,500	5,000
1955-----	950,000	2,500	-----	2,500	2,500	-----	2,500	7,500
1956-----	950,000	2,500	-----	2,500	2,500	-----	2,500	10,000
1957-----	950,000	2,500	-----	2,500	2,500	-----	2,500	12,500
1958-----	950,000	2,500	-----	2,500	2,500	-----	2,500	15,000
1959-----	950,000	8,500	-----	8,500	8,500	-----	8,500	23,500
1960-----	950,000	8,500	-----	8,500	8,500	-----	8,500	32,000
1961-----	950,000	8,500	-----	8,500	8,500	-----	8,500	40,500
1962-----	¹ 808,795	8,500	-----	8,500	8,500	-----	8,500	49,000
1963-----	808,795	8,293	² \$18,532	26,825	8,293	\$18,532	26,825	75,825
1964-----	808,795	8,293	-----	8,293	8,293	-----	8,293	84,118
1965-----	808,795	8,293	-----	8,293	8,293	-----	8,293	92,411
1966-----	808,795	8,293	-----	8,293	8,293	-----	8,293	100,704
1967-----	808,795	8,293	-----	8,293	8,293	-----	8,293	108,997
1968-----	808,795	8,293	-----	8,293	8,293	-----	8,293	117,290
1969-----	808,795	8,293	-----	8,293	8,293	-----	8,293	125,583
Total-----	-----	107,051	18,532	125,583	107,051	18,532	125,583	-----

¹ Obligation for Savage Dam reduced to actual cost of \$808,795.² Payment of outstanding obligation on 252.03 acres excluded for highway right-of-way.

HAMMOND PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

NEW MEXICO

The Hammond project was authorized by the act of April 11, 1956 (70 Stat. 105), as one of the initial participating projects of the Colorado River Storage project. It is located in northwestern New Mexico on the south side of the San Juan River near Bloomfield and is to furnish a full irrigation water supply to 3,933 acres of class 1, 2, and 3 lands, plus having some fish and wildlife benefits.

The total cost of the project is estimated at \$5,393,972. In addition, \$243,700 is allocated to fish and wildlife and will be incurred by other agencies under section 8 of the authorizing act.

The major features of the project consist of the Hammond Diversion Dam, Hammond Main Canal, Hammond Pumping Plant, a lateral system totaling 12.3 miles in length and drains to be constructed where needed.

Water is obtained by direct diversion of the natural streamflow, supplemented by storage releases from the Navajo Reservoir. Water is diverted from the San Juan River by the Hammond Diversion Dam and turned into the 27-mile-long Main Canal. The Hammond Pumping Plant, located approximately 6 miles downstream from the diversion dam, delivers 18 cubic feet per second of irrigation water to two laterals—the East Highline Lateral which extends 2.7 miles in length to the east, the West Highline Lateral which extends 3.6 miles to the west, and the Gravity Extension Lateral, 4.2 miles in length to the east that serves land above the Main Canal beyond the Hammond Pumping Plant. Four other short laterals with a combined length of 1.8 miles serve land near the lower end of the project.

The development period, which is for seven years,

will commence when all canals and project features are in satisfactory condition.

The present irrigable area for service is 3,933 acres, with 2,095 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$212,008 and \$101.20, respectively.

Repayment contract.—The Hammond Conservancy District as the contracting agency has agreed to repay \$450,000 as the irrigators' obligation in 50 equal annual installments.

CONTRACT

1959, October 20: Contract 14-06-400-1022 with the Hammond Conservancy District for repayment of \$450,000 in 50 successive equal annual installments.

Summary of status of repayment contracts:

Total value of contracted repayment	\$450,000
Total matured charges	0

Statement of cost and repayment:

Cost:

Hammond Diversion Dam	\$602,756
Hammond Pumping Plant	336,543
Main Canal and laterals	3,889,769
Other features	564,904

Total cost	5,393,972
Other agency costs—section 8	243,700

Total	5,637,672
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Reimbursable costs:

Irrigation	5,236,275
Investigations prepaid	7,697

Total	5,243,972
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Nonreimbursable costs: Fish and wildlife

(includes \$243,700, section 8)	393,700
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Total	5,637,672
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Repayment and other credits:		Power revenues—Upper Colorado River	
Repayments realized:		Basin Fund	4,785,925
Miscellaneous revenues	350	Subtotal anticipated future repayment	5,235,925
Costs financed by C.R.D.F.	7,697	Total repayment	5,243,972
Subtotal repayment realized	8,047	Other credits, nonreimbursable	393,700
Anticipated future repayment:		Total repayment and other credits	5,637,672
Repayment contracts unmatured	450,000		

HONDO PROJECT

NEW MEXICO

The Hondo project was authorized by the Secretary on November 10, 1903, under the Reclamation Act of 1902 (32 Stat. 388). It was examined and reported upon by a board of Army Engineers and approved by the President on January 5, 1911, in accordance with the act of June 25, 1910 (36 Stat. 835). Features included a reservoir in a natural depression with six embankments, a diversion dam and inlet canal, and a distribution system.

The project was completed in May 1907. The irrigable area of the project was 10,000 acres, of which 9,760 were in private ownership. The project proved to be unsuccessful because of an insufficient rainfall and the development of extensive leaks in the reservoir. On April 1, 1917, the United States withdrew its employees and ceased operation.

No water-right applications were filed, no liens estab-

lished against the lands, and no repayment contract entered into.

The Hondo Irrigation Association was formed in 1921 for the purpose of taking over operation and maintenance of the Hondo project. On September 2, 1922, a contract was executed, by which the United States delivered all works of the Hondo project to the association for the purpose of operation and maintenance. This contract was terminated and all acquired and withdrawn lands were restored to the public domain in 1969.

In 1924, the committee of special advisers (Fact Finders' Committee) recommended that the Hondo project be appraised and sold, and the losses incurred charged to the Reclamation fund. Total cost of construction is \$339,377, and of operation and maintenance is \$32,411.

HUMBOLDT PROJECT

NEVADA

Construction of the Humboldt project in Pershing County, Nevada, was approved by the President on November 6, 1935.

The original plan provided for the construction of Rye Patch Dam and Reservoir on the Humboldt River to supply irrigation water to 40,000 acres. The purchase of ranching properties in the Battle Mountain Valley for their decreed water rights was made to firm up the project's water supply.

The total cost of constructing the project features, including rehabilitation, is \$1,341,739. This amount, together with funded operation and maintenance charges, less revenues, is fully repayable by the Pershing County Water Conservation District. Operation and maintenance of the project was transferred to the District on January 15, 1941.

In 1969, the irrigable area for service was 39,623 acres and the area irrigated was 31,018 acres. The gross value of crops produced was \$3,873,599 and the average value per irrigated acre was \$124.88.

Repayment contracts.—The original repayment contract was signed by the Pershing County Water Conservation District on October 1, 1934, to repay the construction cost of the Humboldt project facilities in 36 equal annual installments, commencing in 1944.

On October 6, 1955, the Pershing County Water Conservation District signed a contract to repay the costs of rehabilitation and betterment of works in the Battle Mountain water development and collection system with the amount of the obligation not to exceed \$123,000, to be repaid in 20 equal annual installments. The notice of completion of work and statement of final cost set the actual contract amount at \$122,998.

Severe drought conditions on the Humboldt project occurred in 1955, which resulted in financial hardships and the District requested relief from their 1956 annual payment. Accordingly, the payment due on October 1, 1956, was deferred and the project repay-

ment period was extended 1 year with the final payment due and payable on October 1, 1978.

Another severe drought occurred on the Humboldt project in 1961 and again the District requested relief. This resulted in a supplemental contract between the United States and the District (supplement No. 2, contract Ilr-774, dated September 14, 1962) wherein the payment due on October 1, 1962, was deferred and prorated over the remaining years of the repayment period.

Payout schedule.—Construction repayment is scheduled to be completed in fiscal year 1978 with equal annual payments of \$35,703.

Rehabilitation and betterment balance is repayable in 9 equal annual installments of \$6,150 each. Final payment in 1979 of \$6,148.46.

CONTRACTS AND NOTICES

- 1934, October 1: Contract Ilr-774 with the Pershing County Water Conservation District. District agreed to repay construction costs, not to exceed \$1,500,000, in 36 equal annual installments.
- 1941, August 8: Supplemental contract Ilr-774 with the Pershing County Water Conservation District. Excess land provisions of the Federal Reclamation laws were nullified on the Humboldt project lands as provided by the act of Congress of November 29, 1940 (Public Law 883, 76th Cong.).
- 1948, April 6: Letter notice to the Pershing County Water Conservation District stating that construction of project features was completed and the costs to be repaid were \$1,312,101.08. Credit from sale of Pitt Ranch, \$100,856.40. Balance to be repaid by irrigators, \$1,211,244.68.
- 1955, October 6: Contract 14-06-400-429 with Pershing County Water Conservation District of Nevada, contract obligation \$123,000, for rehabilitation and betterment of certain project features. The obligation is payable 5 percent annually on October 1 each year following notice of final cost.
- 1958, December 9: Letter notice to the Pershing County Water Conservation District stating rehabilitation and betterment of project works was completed at a final cost of

REPAYMENT OF RECLAMATION PROJECTS

\$122,998.46. Repayment due and payable in 20 annual installments, 19 installments of \$6,150 each and one at \$6,148.46. First installment due and payable on or before October 1, 1959.

1962, September 14: Supplemental contract Ilr-774 with Pershing County Water Conservation District was executed. The annual repayment installment for 1962 was deferred and rescheduled for payment during the remaining 15 years of the repayment period.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,334,243
Total matured charges	925,128
Total matured charges repaid	925,128
Total matured charges unpaid	0

Cost and repayment allocations:

Irrigation plant in service	\$1,337,319
Corollary costs	4,420
Total	1,341,739
O&M funded	21,021
Total allocated to irrigation	1,362,760
Repayment realized June 30, 1969:	
Repayment contracts matured	925,128
Other revenues	28,517
Total	953,645
Repayment anticipated:	
Repayment contracts unmatured	409,115
Total repayment	1,362,760

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1943-----	\$1,350,000	\$500	-----	\$500	\$500	-----	\$500	\$500
1944-----	1,350,000	39,553	-----	39,553	39,553	-----	39,553	40,053
1945-----	1,350,000	38,528	-----	38,528	38,528	-----	38,528	78,581
1946-----	1,350,000	38,528	-----	38,528	38,528	-----	38,528	117,109
1947-----	1,350,000	38,528	-----	38,528	38,528	-----	38,528	155,637
1948-----	1,211,245	38,528	-----	38,528	38,528	-----	38,528	194,165
1949-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	228,068
1950-----	1,211,245	33,902	-----	33,902	33,902	-----	33,902	261,970
1951-----	1,211,245	33,902	-----	33,902	33,902	-----	33,902	295,872
1952-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	329,775
1953-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	363,678
1954-----	1,211,245	33,902	-----	33,902	33,902	-----	33,902	397,580
1955-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	431,483
1956-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	465,386
1957-----	1,211,245	7,000	-----	7,000	7,000	-----	7,000	472,386
1958-----	1,211,245	33,902	-----	33,902	33,902	-----	33,902	506,288
1959-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	540,191
1960-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	574,094
1961-----	1,211,245	33,902	-----	33,902	33,902	-----	33,902	607,996
1962-----	1,211,245	33,903	-----	33,903	33,903	-----	33,903	641,899
1963-----	1,211,245	7,512	-----	7,512	7,512	-----	7,512	649,411
1964-----	1,211,245	35,703	-----	35,703	35,703	-----	35,703	685,114
1965-----	1,211,245	35,703	-----	35,703	35,703	-----	35,703	720,817
1966-----	1,211,245	35,702	-----	35,702	35,702	-----	35,702	756,519
1967-----	1,211,245	35,703	-----	35,703	35,703	-----	35,703	792,222
1968-----	1,211,245	35,703	-----	35,703	35,703	-----	35,703	827,925
1969-----	1,211,245	35,703	-----	35,703	35,703	-----	35,703	863,628
Total-----	-----	863,628	-----	863,628	863,628	-----	863,628	-----

REHABILITATION AND BETTERMENT REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1960-----	\$122,998	\$6,150	-----	\$6,150	\$6,150	-----	\$6,150	\$6,150
1961-----	122,998	6,150	-----	6,150	6,150	-----	6,150	12,300
1962-----	122,998	6,150	-----	6,150	6,150	-----	6,150	18,450
1963-----	122,998	6,150	-----	6,150	6,150	-----	6,150	24,600
1964-----	122,998	6,150	-----	6,150	6,150	-----	6,150	30,750
1965-----	122,998	6,150	-----	6,150	6,150	-----	6,150	36,900
1966-----	122,998	6,150	-----	6,150	6,150	-----	6,150	43,050
1967-----	122,998	6,150	-----	6,150	6,150	-----	6,150	49,200
1968-----	122,998	6,150	-----	6,150	6,150	-----	6,150	55,350
1969-----	122,998	6,150	-----	6,150	6,150	-----	6,150	61,500
Total--	-----	61,500	-----	61,500	61,500	-----	61,500	-----

HUNGRY HORSE PROJECT

MONTANA

The Hungry Horse project in Flathead County was authorized by the act of June 5, 1944 (58 Stat. 270). The act of May 29, 1958 (P.L. 85-428) amended the authorizing act to make Hungry Horse a Reclamation project subject to Reclamation laws. The dam and powerplant are designed for flood control, generation of electrical energy, regulation of the Flathead River, and increasing firm power at downstream plants.

Repayment of the total estimated cost of \$102,139,585, with the exception of a nonreimbursable allocation for flood control, will be made by revenues from electrical energy produced at the powerplant and at other public and private powerplants downstream.

The final cost allocation on June 24, 1960, provides that the joint facilities be allocated 70 percent to power and 30 percent to flood control.

The allocation of costs is as follows:

Power and river regulation	\$77,528,937
Flood control	24,675,772
Total cost	102,204,709
Replacement cost not capitalized	- 65,124
Total	102,139,585

The dam and powerplant are operated by the Bureau of Reclamation. The transmission and sale of all electrical energy are handled by the Bonneville Power Administration.

The total plant investment in the Hungry Horse project is as follows:

Dam and reservoir	\$77,840,596
Powerplant	20,258,163
Transmission plant	2,208,758
Tour center	228,144
Village and service facilities	1,603,924
Total	102,139,585

PAYOUT STUDY—INVESTMENT REPAYMENT FROM POWER REVENUES

Fiscal year	Net revenues	Repayment component of net revenues		Interest bearing commercial electric plant	
		Interest, 3 percent	Principal	In service end of year	Balance to be repaid
1953-----	\$652,970		\$652,970	\$68,091,496	\$67,438,526
1954-----	3,800,096	\$2,023,156	1,776,940	80,163,184	77,733,274
1955-----	3,064,758	2,331,998	732,760	81,626,740	78,464,070
1956-----	3,049,700	2,353,922	695,778	81,864,084	78,005,636
1957-----	3,003,713	2,340,169	663,544	81,926,459	77,404,467
1958-----	3,159,277	2,322,134	837,143	81,975,129	76,615,994
1959-----	3,171,770	2,298,480	873,290	81,277,071	75,044,646
1960-----	3,169,106	2,251,339	917,767	78,265,903	71,115,711
1961-----	3,260,216	2,133,471	1,126,745	77,168,877	68,891,940
1962-----	3,301,062	2,066,758	1,234,304	77,237,825	67,726,584
1963-----	5,467,728	1,973,943	3,493,785	77,330,446	64,325,420
1964-----	2,722,897	1,929,763	793,134	77,344,754	63,546,594
1965-----	6,993,405	1,906,398	5,087,007	77,357,569	58,472,402
1966-----	9,190,535	1,754,172	7,436,363	77,413,268	51,091,738
1967-----	9,308,635	1,532,752	7,775,883	77,405,605	43,308,192
1968-----	11,972,580	1,299,246	10,673,334	77,390,551	32,619,804
1969-----	11,143,122	978,594	10,164,528	77,472,149	22,536,874
Adjustment as per ARRS-----	(857,758)	(857,758)			
Subtotal thru 1969-----	85,573,812	30,638,537	54,935,275	77,472,149	22,536,874
1970-----	9,317,000	676,106	8,640,894	77,505,137	13,928,968
1971-----	4,292,000	417,869	3,874,131	77,528,937	10,078,637
1972-----	494,323	302,359	191,964	77,528,937	9,886,673
1973-----	494,323	296,600	197,723	77,528,937	9,688,950
1974-----	494,323	290,668	203,655	77,528,937	9,485,295
1975-----	494,323	284,559	209,764	77,528,937	9,275,531
1976-----	494,323	278,266	216,057	77,528,937	9,059,474
1977-----	494,323	271,784	222,539	77,528,937	8,836,935
1978-----	494,323	265,108	229,215	77,528,937	8,607,720
1979-----	494,323	258,232	236,091	77,528,937	8,371,629
1980-----	494,323	251,149	243,174	77,528,937	8,128,455
1981-----	494,323	243,854	250,469	77,528,937	7,877,986
1982-----	494,323	236,340	257,983	77,528,937	7,620,003
1983-----	494,323	228,600	265,723	77,528,937	7,354,280
1984-----	494,323	220,628	273,695	77,528,937	7,080,585
1985-----	494,323	212,418	281,905	77,528,937	6,798,680
1986-----	494,323	203,960	290,363	77,528,937	6,508,317
1987-----	494,323	195,250	299,073	77,528,937	6,209,244
1988-----	494,323	186,277	308,046	77,528,937	5,901,198
1989-----	494,323	177,036	317,287	77,528,937	5,583,911
1990-----	494,323	167,517	326,806	77,528,937	5,257,105
1991-----	494,323	157,713	336,610	77,528,937	4,920,495
1992-----	494,323	147,615	346,708	77,528,937	4,573,787
1993-----	494,323	137,214	357,109	77,528,937	4,216,678
1994-----	494,323	126,500	367,823	77,528,937	3,848,855
1995-----	494,323	115,466	378,857	77,528,937	3,469,998
1996-----	494,323	104,100	390,223	77,528,937	3,079,775
1997-----	494,323	92,393	401,930	77,528,937	2,677,845
1998-----	494,323	80,335	413,988	77,528,937	2,263,857
1999-----	494,323	67,916	426,407	77,528,937	1,837,450
2000-----	494,323	55,124	439,199	77,528,937	1,398,251
2001-----	494,323	41,948	452,375	77,528,937	945,876
2002-----	494,323	28,376	465,947	77,528,937	479,929
2003-----	494,327	14,398	479,929	77,528,937	0
Total-----	115,001,152	37,472,215	77,528,937	77,528,937	-----

HUNTLEY PROJECT

MONTANA

The Huntley project, situated on the Yellowstone River in southcentral Montana, near Ballantine, was authorized by the Secretary on April 18, 1905, under the Reclamation Act of 1902.

The project was constructed for irrigation and now includes 27,256 acres of irrigable land in Yellowstone County. There were 24,010 acres irrigated in calendar year 1969. The total value of the 1969 crop amounted to \$2,223,300, or an average per acre value of \$92.60. The gross crop value from 1909–1969 amounts to \$65,915,499. Water has been furnished under contract to the town of Worden for municipal purposes since 1955 and will be furnished to the town of Ballantine under contract dated November 13, 1969.

The project works include a rockfill and concrete diversion dam, 32 miles of main canal, 21.5 miles of high line canal, 203 miles of laterals, 187 miles of drains, a hydraulic turbine-driven pumping plant in the main canal, and an offstream storage reservoir.

Construction began October 6, 1905. The Pryor division was completed and the first water delivered in 1908. The Eastern division was completed in 1914, and the Fly Creek division in 1915. The high line canal was enlarged in 1917 from 60 to 100-cubic-foot-per-second capacity. A small diversion dam was completed by the Huntley Project Irrigation District in 1934 and Anita Dam and Reservoir, constructed by CCC forces, was completed in 1937. Emergency repairs to the diversion dam were accomplished in 1957 under a rehabilitation and betterment contract.

The project diverts water from the Yellowstone River to irrigable lands on the south side of the river below Huntley, Mont. The gravity distribution system extends from the intake of the main canal, at the diversion dam on the Yellowstone River, in a general northeasterly direction for about 27 miles. At mile 13.77, a 35-foot drop in the main canal is utilized to lift water into the high line canal, which originates at this point. Two-thirds of the 300-cubic-foot-per-second capacity of the

main canal at the pumps drops through the turbines and develops sufficient power to lift the remaining one-third 43 feet to the high line canal for the irrigation of approximately 5,000 acres. Anita Reservoir is filled during slack periods from the high line canal to supplement the supply from the hydraulic pumps during periods of heavy demand.

The project works were transferred to Huntley Project Irrigation District for operation and maintenance on December 31, 1927.

Repayment contracts.—Under a repayment contract executed in January 1927, the District assumed all repayment obligations previously under individual water-right applications and certain other costs including additional drainage work. The repayment period was extended to 40 years, with additional time for previous delinquencies and for supplemental construction charges.

A rehabilitation and betterment contract was negotiated on January 4, 1957, for the emergency repair of the diversion dam, constructed in 1934 by the irrigation district. Work under this contract was completed in 1958 at a cost of \$84,263.

An amendatory repayment contract dated September 1, 1961, provided for writeoff of \$121,498 for unproductive lands. Construction installments are based on "full-pay" lands at \$1.75 per acre per year, and "limited-pay" lands at \$0.75 per acre. Seventy-six percent of the water users' obligations had been repaid to June 30, 1969.

PUBLIC NOTICES AND CONTRACTS

- 1907, May 21: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1913, August 9: Public notice. Construction charge \$50 per acre, payable in 10 graduated installments.
- 1914, November 3: Public notice. Construction charge \$60 per acre, payable in 20 graduated installments.
- 1915, October 19: Public notice. Construction charge \$60 per acre, payable in 20 graduated installments.

- 1915, December 23: Public notice. Covers supplemental construction for first unit, \$15 per acre, payment in installments of \$1.80 and \$2 per acre after 20-year repayment period.
- 1920, June 30: Public notice. Announces that \$50 rate in public notice of August 9, 1913, includes the \$15 per acre supplemental construction charge.
- 1927, January 2: Contract 11r-102 with Huntley Project Irrigation District. District assumes obligations under individual water-right applications, assumes obligation for certain costs incurred not covered by public notices, and assumes obligation for additional drainage work. Extends time for payment of delinquent construction and operation and maintenance charges. Supplemental construction charges to be paid in 10 years after regular construction charges.
- 1952, April 10: Contract 179r-2353 with State of Montana for \$520.71.
- 1955, July 11: Contract 14-06-600-1558 with Worden Community Water Users Association, Inc., for \$2,240.
- 1957, January 4: Contract 14-06-600-2140 with Huntley Project Irrigation District for \$100,000 to rehabilitate and repair the diversion dam. Repayment to be successive annual installments of \$5,000, beginning in 1960 and to continue until the full amount expended is repaid.
- 1961, September 1: Contract 14-06-600-5866 restates obligation after reclassification of class 5 lands, and modifies annual installment.
- 1969, November 13: Contract 14-06-600-2A with County of Yellowstone, Rural Special Improvement District No. 504, Ballantine, Mont. for \$1,120.

Statement of cost and repayment:

Irrigation plant costs	\$1,745,148
Cost of rehabilitation of diversion dam	84,263
Net cost of land acquired from Crow Tribe of Indians	<u>37,617</u>

Subtotal, plant, property and equipment	1,867,028
Corollary construction costs:	
Property transfers	16,949
Adjustment surveys	558
Sale of land	<u>36,437</u>
Total cost	1,920,972
Other charges:	
O&M deficit	361,950
Interest and penalties	<u>29,117</u>
Total	<u><u>2,312,039</u></u>

Repayment and other credits:

Repayment realized:	
Repayment contracts matured	1,375,581
Contributions	718
Water users equity	6,436
Miscellaneous revenues	<u>20,340</u>
Anticipated future repayment:	
Repayment contracts unmatured	426,647
Miscellaneous revenues	<u>593</u>
Total repayment	1,830,315
Nonreimbursable costs:	
CCC contribution	223,564
Indian lands, act of August 14, 1958	37,617
Chargeoff, act of May 25, 1926	62,050
Chargeoff, act of August 30, 1961	121,498
Subsection "K", act of December 5, 1924	558
Sale of land, act of August 14, 1958	<u>36,437</u>
Total repayment and other credits	<u><u>2,312,039</u></u>

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,802,228
Total matured charges	1,375,581
Total matured charges repaid	1,375,581
Total matured charges unpaid	<u>0</u>

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$32,027		\$32,027	\$31,082		\$31,082	\$31,082
1909		10,083		10,083	10,083	\$945	11,028	42,110
1910		45,063		45,063	16,209		16,209	58,319
1911		57,769		57,769	20,136	20,918	41,054	99,373
1912		64,088	¹ \$7,060	57,028	13,604	37,462	51,066	150,439
1913		67,065	² 2,279	64,786	9,660	44,899	54,559	204,998
1914 ³		67,595	¹ 28,133	39,462	7,050	18,644	25,694	230,692
1915 ³	\$751,109	¹ 15,626	¹ 38,143	¹ 53,769	11,704	4,237	15,941	246,633
1916	861,164	14,996	2,275	17,271	11,387	6,375	17,762	264,395
1917	1,248,216			11,231			10,472	274,867
1918	1,277,356			6,301			6,891	281,758
1919	1,310,317			13,697			14,273	296,031
1920	1,320,393			13,914	64,428		14,178	310,209
1921	1,332,489			23,247			18,614	328,823
1922	1,324,280	28,504	¹ 2,404	26,100	13,849	460	14,309	343,132
1923	1,320,616	29,034	¹ 1,317	27,717	10,196	6,302	16,498	359,630
1924	1,314,490	29,690	¹ 4,687	25,003	13,150	4,389	17,539	377,169
1925	1,340,449	32,319	¹ 941	31,378	16,228	2,353	18,581	395,750
1926	1,346,195	33,731	¹ 397	33,334	18,030	10,416	28,446	424,196
1927	1,393,941	4,590	¹ 47,061	¹ 42,471	3,110	6,893	10,003	434,199
1928	1,390,407	5,112	² 4,937	175	5,112	35	5,147	439,346
1929	² 1,790,365	87,109		87,109	87,109		87,109	526,455
1930	1,803,806	5,466		5,466	5,466		5,466	531,921
1931	1,823,831	9,463		9,463	9,107		9,107	541,028
1932 ⁴	1,829,729	9,130		9,130	8,932	356	9,288	550,316
1933 ⁴	1,818,663	6,450		6,450	6,340	170	6,510	556,826
1934 ⁴	1,818,682	1,018		1,018	939	138	1,077	557,903
1935 ⁴	1,825,835	1,154		1,154	1,154	79	1,233	559,136
1936 ⁴	1,832,115	1,704		1,704	1,621		1,621	560,757
1937 ⁴	1,832,853	10,907		10,907	10,659	83	10,742	571,499
1938	1,832,853	17,344		17,344	16,553	248	16,801	588,300
1939	1,832,853	17,692		17,692	16,887	791	17,678	605,978
1940	1,838,409	17,337		17,337	16,482	805	17,287	623,265
1941	1,838,409	16,478		16,478	16,079	855	16,934	640,199
1942	1,838,409	15,788		15,788	15,611	399	16,010	656,209
1943	1,838,409	15,705		15,705	15,649	177	15,826	672,035
1944	1,838,409	15,034		15,034	14,952	56	15,008	687,043
1945	1,831,915	14,035		14,035	13,974	82	14,056	701,099
1946	1,831,915	14,455		14,455	14,455	61	14,516	715,615
1947	1,831,915	11,905		11,905	11,905		11,905	727,520
1948	1,831,915	12,050		12,050	12,050		12,050	739,570
1949	1,831,915	29,837		29,837	29,837		29,837	769,407
1950	1,837,434	32,245		32,245	32,245		32,245	801,652
1951	1,837,434	34,727		34,727	34,727		34,727	836,379
1952	1,837,434	38,167		38,167	38,167		38,167	874,546
1953	1,837,434	38,123		38,123	38,123		38,123	912,669
1954	1,837,434	38,941		38,941	38,941		38,941	951,610
1955	1,837,434	39,056		39,056	39,056		39,056	990,666
1956	1,839,546	38,192		38,192	38,192		38,192	1,028,858
1957	1,939,674	38,810		38,810	38,810		38,810	1,067,668
1958	1,939,674	37,800		37,800	37,800		37,800	1,105,468
1959	1,923,936	22,342		22,342	22,342		22,342	1,127,810
1960	1,923,936	20,631		20,631	20,631		20,631	1,148,441
1961	1,923,936	21,760		21,760	21,760		21,760	1,170,201
1962	⁵ 1,788,426	47,207		47,207	47,207		47,207	1,217,408
1963	1,788,426	31,445		31,445	31,445		31,445	1,248,853
1964	1,788,426	25,834		25,834	25,834		25,834	1,274,687
1965	⁶ 1,789,119	21,512		21,512	21,512		21,512	1,296,199
1966	1,789,119	20,047		20,047	20,047		20,047	1,316,246
1967	1,789,119	19,563		19,563	19,563		19,563	1,335,809
1968	⁷ 1,802,228	18,646	⁸ 3,196	21,842	18,646	3,196	21,842	1,357,651
1969	1,802,228	17,930		17,930	17,930		17,930	1,375,581
Total		1,507,469	-131,888	1,375,581	1,203,757	171,824	1,375,581	

¹ Decrease. Decreases cover cancellation of water-right applications and funding of delinquent charges.

² Obligations increased by provisions of 1927 contract. District assumed obligation for certain costs not covered by public notices.

³ 1914. Reclamation Extension Act of Aug. 13, 1914.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$23,735; 1932, \$27,960; 1933, \$14,293; 1934, \$14,870; 1935, \$15,262; 1936, \$7,318.

⁵ Writeoff of \$135,300 per amendatory contract dated Sept. 1, 1961, and \$210 to adjust difference in closing out unmatured balance under old and new contracts.

⁶ Restoration of 12 acres to pay class.

⁷ 80.36 acres of full pay and 167.50 acres of limited pay lands brought into District.

⁸ Credit for power water service payments on lands brought into District.

PAYOUT SCHEDULE

Fiscal year	Full pay lands	Limited pay lands	Balance to be repaid
Cumulative through 1969	\$1,339,296	\$36,285	\$426,647
1970	12,660	4,883	409,104
1971	12,276	4,883	391,945
1972	8,874	4,883	378,188
1973	7,205	4,883	366,100
1974	6,844	4,883	354,373
1975	6,347	4,883	343,143
1976	5,827	4,883	332,433
1977	5,728	4,883	321,822
1978	5,401	4,883	311,538
1979	5,074	4,883	301,581
1980	4,826	4,883	291,872
1981	4,034	4,883	282,955
1982	3,477	4,883	274,595
1983	2,838	4,883	266,874
1984	2,645	4,883	259,346
1985	2,468	4,883	251,995
1986	2,237	4,883	244,875
1987	2,237	4,883	237,755
1988	2,047	4,883	230,825
1989	1,910	4,883	224,032
1990	1,804	4,883	217,345
1991	1,706	4,883	210,756
1992	1,559	4,883	204,314
1993	1,406	4,883	198,025
1994	917	4,883	192,225
1995	724	4,883	186,618
1996	468	4,883	181,267
1997	285	4,883	176,099
1998	179	4,883	171,037
1999	54	4,883	166,100
2000	49	4,883	161,168
2001	28	4,883	156,257
2002	26	4,883	151,348
2003	26	4,883	146,439
2004	26	4,883	141,530
2005	13	4,883	136,634
2006-2032		131,841	4,793
2033		4,793	
Totals	1,453,521	348,707	

HYRUM PROJECT

UTAH

The construction of Hyrum project in southern Cache County, Utah, near Wellsville, was approved by the President on November 6, 1935.

The project furnishes supplemental water to an area of about 6,800 irrigable acres. Project features include the Hyrum Dam and Reservoir on the Little Bear River, a diversion dam on the East Fork of the Little Bear River, the Hyrum-Mendon Canal, the Wellsville Canal, and the Hyrum Feeder Canal.

The total project cost of \$954,895 is allocated to irrigation and is reimbursable. Of this amount, \$11,884 was contributed and the balance is repayable by the South Cache Water Users Association.

Operation and maintenance of the project was transferred to the South Cache Water Users Association May 1, 1936.

The present irrigable area for service is 6,800 acres, with 5,832 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$378,908 and \$64.97, respectively.

CONTRACTS

- 1933, October 9: Contract 11r-745 with South Cache Water Users Association provided for payment of construction cost in 40 equal annual installments.
- 1941, December 31: Amendatory contract with South Cache Water Users Association rescheduled installments on a graduated basis within a 40-year period. All except the first four payments are subject to the normal and percentages variable repayment plan.
- 1950, May 24: Amendatory contract with South Cache Water Users Association schedules the remaining construction obligation, \$769,000, over a period of 47 years with all installments subject to the normal and percentages variable repayment plan. Base annual installments: \$17,240

through year 1970; \$16,155 from year 1971 through 1995, when payment will be completed. This contract, negotiated pursuant to section 7 of the Reclamation Project Act of 1939, was approved by special congressional act of August 5, 1950.

Summary of status of repayment contracts:

Total value of repayment contract	\$944,046
Total matured charges	525,523
Total matured charges repaid	525,523
Total matured charges unpaid	0

Statement of cost and repayment:

Cost:

Hyrum Dam and Reservoir	\$731,128
Other features	222,726
Subtotal, irrigation plant	953,854
Property transfers	1,041
Total cost	954,895
O&M deficit funded	1,036
Total	955,931

Repayment and other credits:

Repayments realized:

Repayment contracts matured	525,523
Contributions	9,971
Water users equity	1,913
Miscellaneous income	315

Subtotal, repayment realized 537,722

Anticipated future repayment:

Repayment contracts unmatured 418,523

Subtotal anticipated future repayment 418,523

Total repayments 956,245

Surplus 314

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1940-----	\$930,000	\$23,250		\$23,250				
1941-----	930,000	23,250		23,250	\$5,967		\$5,967	\$5,967
1942-----	930,000	9,300	¹ \$46,500	¹ 37,200	3,333		3,333	9,300
1943-----	930,000	9,300		9,300	6,716		6,716	16,016
1944-----	930,000	9,300		9,300	9,300		9,300	25,316
1945-----	930,000	9,300		9,300	9,300		9,300	34,616
1946-----	930,000	26,970		26,970	26,970		26,970	61,586
1947-----	930,000	26,970		26,970	26,970		26,970	88,556
1948-----	930,000	30,225		30,225	30,225		30,225	118,781
1949-----	930,000	27,900		27,900	27,900		27,900	146,681
1950-----	930,000	28,365		28,365	28,365		28,365	175,046
1951-----	² 944,046	15,861	-2,584	13,277	15,861		15,861	190,907
1952-----	944,046	17,930		17,930	17,930		17,930	208,837
1953-----	944,046	17,585		17,585	17,585		17,585	226,422
1954-----	944,046	16,550		16,550	16,550		16,550	242,972
1955-----	944,046	13,792		13,792	13,792		13,792	256,764
1956-----	944,046	17,240		17,240	17,240		17,240	274,004
1957-----	944,046	17,930		17,930	17,930		17,930	291,934
1958-----	944,046	19,381		19,381	19,381		19,381	311,315
1959-----	944,046	15,032		15,032	15,032		15,032	326,347
1960-----	944,046	19,152		19,152	19,152		19,152	345,499
1961-----	944,046	13,832		13,832	13,832		13,832	359,331
1962-----	944,046	20,395		20,395	20,395		20,395	379,726
1963-----	944,046	21,696		21,696	21,696		21,696	401,422
1964-----	944,046	19,526		19,526	19,526		19,526	420,948
1965-----	944,046	20,828		20,828	20,828		20,828	441,776
1966-----	944,046	20,828		20,828	20,828		20,828	462,604
1967-----	944,046	20,828		20,828	20,828		20,828	483,432
1968-----	944,046	21,262		21,262	21,262		21,262	504,694
1969-----	944,046	20,829		20,829	20,829		20,829	525,523
Total-----		574,607	-49,084	525,523	525,523		525,523	

¹ Decrease. Adjustment of accruals to conform to terms of 1941 contract.² Increase. Adjustments to conform to terms of 1950 amendatory contract.

INTAKE PROJECT

MONTANA

The Intake project, located along the Yellowstone River in eastern Montana, was found feasible by the Secretary on October 11, 1943, and approved by the President on January 20, 1944, under the terms of the Water Conservation and Utilization Act of August 11, 1939, as amended.

Construction began in July 1945, and was completed in time for delivery of water on a partial basis during the 1946 irrigation season. The District was notified that water was available at the beginning of the irrigation season of 1947 for delivery to all of the irrigable lands of the project. The development period of four years commenced with the calendar year of 1947.

Project works consist of two electric driven pumps, each pump serving a lateral lifting water 23 and 16 feet, respectively. There are 3.9 miles of laterals and 1.8 miles of drains. The transmission line and substation for the project have been constructed as part of the Fort Peck project. The total cost of the project is \$94,213, including \$6,700 of costs assumed from Lower Yellowstone project.

The main purpose of the project is for irrigation and the total irrigable area for service is 881 acres located in Dawson County, Montana. There were 739 acres irrigated in calendar year 1969, and the total crop value was \$65,514 or an average of \$88.65 per irrigated acre. The total crop value from 1946 through 1969 amounts to \$785,436.

The project is operated by the Board of Control of the Lower Yellowstone project, with funds advanced by the Intake Irrigation District.

CONTRACT

1945, March 30: Contract 11r-1436 with Intake Irrigation District for \$46,900, pursuant to original finding of feasibility. Repayable in 40 years, starting in 1951.

Statement of cost and repayment:

Cost:	
Pumping plant	\$36,965
Lateral system	44,474
Drainage system	6,074
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Irrigation plant	87,513
Obligation assumed from Lower Yellowstone project	6,700
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Total cost	94,213
<hr/>	
Repayment and other credits:	
Repayment contracts matured	19,598
Repayment contracts unmatured	27,302
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Total repayment	46,900
Nonreimbursable plant deductions	47,313
<hr/>	
Total repayment and other credits	94,213
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Summary of status of repayment contracts:

Total value of contracted repayment	\$46,900
Total matured charges	19,598
Total matured charges repaid	19,598
Total matured charges unpaid	0

Payout schedule.—Repayment began in fiscal year 1952. Annual payments of \$1,241 are scheduled through fiscal year 1991.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1952-----	\$46,900	\$235	-----	\$235	\$235	-----	\$235	\$235
1953-----	46,900	465	-----	465	232	-----	232	467
1954-----	46,900	675	-----	675	570	-----	570	1,037
1955-----	46,900	865	-----	865	1,203	-----	1,203	2,240
1956-----	46,900	1,225	-----	1,225	1,225	-----	1,225	3,465
1957-----	46,900	1,241	-----	1,241	1,241	-----	1,241	4,706
1958-----	46,900	1,241	-----	1,241	1,241	-----	1,241	5,947
1959-----	46,900	1,241	-----	1,241	1,241	-----	1,241	7,188
1960-----	46,900	1,241	-----	1,241	1,241	-----	1,241	8,429
1961-----	46,900	1,241	-----	1,241	1,241	-----	1,241	9,670
1962-----	46,900	1,241	-----	1,241	1,241	-----	1,241	10,911
1963-----	46,900	1,241	-----	1,241	1,241	-----	1,241	12,152
1964-----	46,900	1,241	-----	1,241	1,241	-----	1,241	13,393
1965-----	46,900	1,241	-----	1,241	1,241	-----	1,241	14,634
1966-----	46,900	1,241	-----	1,241	1,241	-----	1,241	15,875
1967-----	46,900	1,241	-----	1,241	1,241	-----	1,241	17,116
1968-----	46,900	1,241	-----	1,241	1,241	-----	1,241	18,357
1969-----	46,900	1,241	-----	1,241	1,241	-----	1,241	19,598
Total---	-----	19,598	-----	19,598	19,598	-----	19,598	-----

KENDRICK PROJECT

WYOMING

The Kendrick project was authorized by a finding of feasibility approved by the President August 30, 1935. The Alcova Powerplant was authorized by the Secretary on September 20, 1949, and the plan transmitted to Congress on August 22, 1950, as an addition under the Reclamation Project Act of 1939 (53 Stat. 1187).

Major project features include Seminoe Dam, Reservoir, and Powerplant—primarily for water storage and power production, Alcova Dam, Reservoir, and Powerplant—primarily for diversion of irrigation water from the North Platte River and for power production, the Casper Canal, laterals, and drainage works, and a power transmission system. The total estimated cost of the project is \$33,209,233.

Kendrick project lands were originally in two units planned for the irrigation of 66,000 acres of land in the Casper-Alcova Irrigation District. Construction of irrigation facilities was only extended to 35,000 acres of land in Unit 1. Further construction was deferred pending a determination of adequacy of water supply and suitability of lands for irrigation. Unit 1 acreage was further reduced by reclassification to 23,957 irrigable acres.

Project hydroelectric power production began at the Seminoe 32,400-kilowatt plant in August 1939 and at the Alcova 36,000-kilowatt plant in July 1955. Power production is integrated into the MRB western division power system. Initial deliveries of irrigation water were made in 1946. The United States operated the irrigation works during the construction period on a water rental basis.

On January 1, 1958, operation and maintenance of the distribution works was transferred to the Casper-Alcova Irrigation District. The United States continues to operate and maintain the dams, reservoirs, and powerplants.

The Casper-Alcova Irrigation District began operation of the irrigation system on January 1, 1958, with approximately 15,000 acres developed and under irrigation. Assessments for O&M costs and purchase of addi-

tional water at the rate of \$3.00 per irrigable acre were made by the District for the years 1958 through 1962. During the period 1963–69, assessments have averaged \$3.50 per acre.

Crop production on the project is limited primarily to livestock feed crops, with alfalfa hay and irrigated pasture predominating.

During calendar year 1969, 23,092 acres were irrigated with a total crop value of \$1,393,818 or an average per acre value of \$60.36.

The cost and repayment allocations (excluding the second unit) are all reimbursable as follows:

Cost:

Multipurpose facilities:

Seminoe Dam and Reservoir	\$5,060,896
Casper-Seminoe telephone line	103,674

Irrigation facilities	10,723,963
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Electric facilities:

Seminoe powerplant	3,598,545
Alcova powerplant	6,131,015
Seminoe switchyard	375,116
Transmission lines, substations, etc.	6,536,482

Total plant, property, and equipment	32,529,691
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Corollary construction costs:

Transitional development

Settlers' assistance	151,701
Future year capacity	349,728

Property transfers	178,113
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Total cost	33,209,233
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Other charges, O&M loss	115,094
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Total	33,324,327
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Allocation:

Irrigation	\$15,457,692
Power	17,751,541

Total reimbursable	33,209,233
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Repayment of costs:

From power revenues:

Electric plant investment	17,675,777
Irrigation investment	14,765,065

Subtotal	32,440,842
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From irrigation water users	750,000
Other repayment:	
Water service (deficit)	(115,094)
Contributions	94,093
Miscellaneous income (irrigation)	39,392
Total repayment by project	<u>33,209,233</u>

Repayment and other credits:

Repayments realized:

Power revenues	8,833,225
Contributions	94,093
O&M loss	115,094
Income from rentals, leases, etc.	56,737
Reserves for depreciation	<u>1,203,922</u>

Subtotal repayments realized 10,303,071

Anticipated future repayment:

Repayment contracts unmatured	750,000
Power revenues	21,857,474
Increase in reserve for depreciation	<u>413,782</u>

Subtotal anticipated future repayment 23,021,256

Total repayment and other credits 33,324,327

Repayment contracts.—The original repayment contract made August 3, 1935, with the Casper-Alcova Irrigation District covered the first unit. It was based on an irrigable area of 35,000 acres. An amendatory contract which superseded the 1935 contract was authorized by act of Congress September 4, 1957 (71 Stat. 608) and executed November 25, 1957. The amendatory contract provides (a) for the delivery of water to 23,957 irrigable acres; (b) the District to operate and maintain the canal, laterals, and drainage works, including the construction of future drains as required, at no expense to the United States, beginning January 1, 1958; (c) District to advance \$10,000 per annum, as its share of the operation and maintenance cost of the reserved works, following which water will be delivered to the District at the headworks of the Casper main canal to the extent of 2 acre-feet per acre irrigated; (d) District to pay 50 cents per acre-foot for the delivery of water in excess of 2 acre-feet per acre irrigated until a total of \$600,000 is accumulated as a credit on the construction cost of the project; and (e) during the first 5 years, the District was permitted to retain the 50 cents per acre-foot collected for additional water to be used in seepage relief and drainage construction. The enabling act of September 4, 1957, provided an acreage limitation of 480 acres instead of the 160 acres provided by Reclamation law.

Amendatory contracts dated November 27, 1962, and June 1, 1965, extended the 5-year collection and deposit to the drainage construction account for an additional

10 years. During the period 1957–69, the District, using (a) the 50 cent per acre-foot water service charge for additional water otherwise payable to the United States, (b) about \$1 per acre from its annual O&M assessments, and (c) other revenue sources, has completed construction of drainage and other seepage control works having a total cost of about \$400,000.

CONTRACTS

1935, August 3: Contract 11r-811 with Casper-Alcova Irrigation District; District assumed obligation of \$2,800,000, payable in 80 semiannual installments due June 30 and December 31 in the year following issue of public notice by the Secretary of Interior that water is available.

1957, November 25: Contract 11r-811 (amended) with Casper-Alcova Irrigation District supersedes August 3, 1935, contract. District to pay in advance during each irrigation season for additional water (in excess of 2 acre-feet per acre irrigated) at the rate of 50 cents per acre-foot commencing in 1963. Such payments to continue until a total of \$600,000 has accumulated for the return of construction costs (estimate 50 years). Thereafter, no further payment will be required of the District except \$10,000 annually on May 1 for O&M of reserved works.

1962, November 27: Contract 14-06-700-3276 with Casper-Alcova Irrigation District; supplemental contract for deferment of water charges; payments for additional water due for 1963 and 1964 shall be paid in 20 equal successive annual installments on May 1 of each year, commencing with the year 1983. The amounts deferred (estimate \$12,000 per year) are to be used by the District to finance its drainage construction program.

1965, June 1: Contract 11r-811, amendment No. 2, with Casper-Alcova Irrigation District; rescinded the November 27, 1962, contract; deferred in full the 50 cents per acre-foot water service charge payable to the United States during the 10 years 1963–72 rescheduled payment by increasing the 50 cents per acre-foot by means of a formula then estimated to result in a 62.5 cents per acre-foot charge for additional water until the \$600,000 amount has been paid; provided that the amounts deferred be used by the District to finance construction of drainage and seepage control works.

1966, June 16: Rehabilitation and betterment contract 14-06-700-6004 with Casper-Alcova Irrigation District; for construction of shop building and purchase of equipment needed for maintenance of irrigation system and for the District's drainage works construction program; repayment of cost (not to exceed \$150,000) in annual installments due May 1 of \$12,500 to commence upon completion of payment of the \$600,000 amount pursuant to the November 25, 1957, contract, as amended; requires District creation of a reserve fund adequate for replacement of essential machinery and equipment.

Summary of status of repayment contracts:

Total value of contracted repayment	\$750,000
Total matured charges	0

PAYOUT STUDY

Fiscal year	POWER				IRRIGATION			RECAPITULATION	
	Investment repayment from power revenues— Plant in service at end of year				Casper-Altoona Irrigation District payments 1	Investment repayment		Net project revenues	Earned surplus (cumulative)
	Interest bearing					Amount expected under contract	Interest-free balance to be repaid		
	Interest-bearing		Interest-free						
Repayment components of net power revenues		Principal	Electric plant	Balance to be repaid	Irrigation plant	Balance to be repaid			
1939	\$121,580	\$-62,766	\$4,152,672	\$14,200,100				\$61,811	
1940	157,636	-49,123	5,191,776	11,208,132				108,213	
1941	167,714	44,546	5,128,281	14,198,702				212,260	
1942	178,592	10,630	5,540,898	14,191,218				178,592	
1943	169,683	186,172	5,509,088	14,177,582				336,155	
1944	169,683	169,123	5,600,127	14,177,582				333,243	
1945	164,120	169,123	5,609,871	14,177,582				487,406	
1946	160,539	326,867	5,669,295	14,177,582				456,827	
1947	151,045	305,782	5,751,585	14,177,582				553,353	
1948	144,706	408,617	6,117,587	14,177,582				498,672	
1949	144,951	353,721	6,141,611	14,177,582				501,778	
1950	142,620	478,362	7,501,073	14,177,582				528,500	
1951	159,873	341,905	7,599,705	14,177,582				485,212	
1952	152,185	373,025	7,927,352	14,177,582				622,177	
1953	145,124	383,376	9,480,255	14,177,582				133,066	
1954	140,209	305,003	9,657,695	14,177,582				1,098,152	
1955	176,383	445,704	15,876,098	14,177,582				709,022	
1956	349,501	131,543	16,231,707	14,177,582				671,975	
1957	357,724	739,041	16,419,194	14,177,582				143,151	
1958	339,411	363,186	16,649,355	14,177,582				671,836	
1959	343,836	343,836	16,692,293	14,177,582				315,270	
1960	334,168	326,101	16,753,869	14,177,582				601,517	
1961	326,101	117,353	16,861,275	14,177,582				591,996	
1962	325,802	1,836,029	16,899,212	14,177,582				677,225	
1963	268,890	405,946	16,911,119	14,177,582				334,327	
1964	260,218	55,052	16,179,057	14,177,582				368,507	
1965	236,425	368,092	16,108,575	14,177,582					
1966	225,962	366,034	16,711,714	14,177,582					
1967	231,281	445,944	16,834,363	14,177,582					
1968	221,282	113,045	16,943,945	14,177,582					
1969	-209,732	578,239	16,937,177	14,177,582					
Subtotal	6,140,853	10,169,586	16,937,177	14,177,582				16,310,439	
1970	203,037	522,465	17,217,564	14,177,582				725,502	
1971	195,765	428,756	17,217,564	14,177,582				621,521	
1972	182,903	365,121	17,217,564	14,177,582				548,024	
1973	171,949	366,609	17,655,777	14,177,582				535,558	
1974	174,697	578,099	17,655,777	14,177,582				768,006	
1975	157,348	593,891	17,655,777	14,177,582				705,000	
1976	139,531	611,162	17,655,777	14,177,582				765,693	
1977	121,196	618,533	17,655,777	14,177,582				754,729	
1978	102,640	620,338	17,655,777	14,177,582				737,998	
1979	84,030	620,212	17,655,777	14,177,582				719,242	
1980	65,423	617,276	17,655,777	14,177,582				697,699	
1981	46,905	627,238	17,655,777	14,177,582				689,143	
1982	28,088	611,277	17,655,777	14,177,582				651,365	
1983	9,750	324,984	17,655,777	14,177,582				606,266	
1984			17,655,777	14,177,582				519,188	
1985			17,655,777	14,177,582				480,799	
1986			17,655,777	14,177,582				456,167	
1987			17,655,777	14,177,582				479,069	
1988			17,655,777	14,177,582				510,000	
1989			17,655,777	14,177,582				598,728	
1990			17,655,777	14,177,582				643,128	
1991			17,655,777	14,177,582				676,783	
1992			17,655,777	14,177,582				677,508	
1993			17,655,777	14,177,582				687,578	
1994			17,655,777	14,177,582				693,167	
1995			17,655,777	14,177,582				694,502	
1996			17,655,777	14,177,582				699,594	
1997			17,655,777	14,177,582				687,218	

1998	659,177	17,675,777	14,765,065	5,490,950	15,000	750,000	360,000	674,177
1999	640,842	17,675,777	14,765,065	4,850,108	15,000	750,000	345,000	655,842
2000	616,465	17,675,777	14,765,065	4,233,643	15,000	750,000	330,000	631,465
2001	609,757	17,675,777	14,765,065	3,623,886	15,000	750,000	315,000	624,757
2002	627,097	17,675,777	14,765,065	2,996,789	15,000	750,000	300,000	642,097
2003	668,561	17,675,777	14,765,065	2,328,228	15,000	750,000	285,000	683,561
2004	705,501	17,675,777	14,765,065	1,622,727	15,000	750,000	270,000	720,501
2005	739,426	17,675,777	14,765,065	883,301	15,000	750,000	255,000	754,426
2006	747,855	17,675,777	14,765,065	135,446	15,000	750,000	240,000	762,855
2007	727,476	17,675,777	14,765,065	---	15,000	750,000	225,000	742,476
2008	---	17,675,777	14,765,065	---	15,000	750,000	210,000	715,000
2009	---	17,675,777	14,765,065	---	15,000	750,000	195,000	700,000
2010	---	17,675,777	14,765,065	---	15,000	750,000	180,000	685,000
2011	---	17,675,777	14,765,065	---	15,000	750,000	165,000	670,000
2012	---	17,675,777	14,765,065	---	15,000	750,000	150,000	655,000
2013	---	17,675,777	14,765,065	---	15,000	750,000	137,500	642,500
2014	---	17,675,777	14,765,065	---	12,500	750,000	125,000	630,000
2015	---	17,675,777	14,765,065	---	12,500	750,000	112,500	617,500
2016	---	17,675,777	14,765,065	---	12,500	750,000	100,000	605,000
2017	---	17,675,777	14,765,065	---	12,500	750,000	87,500	592,500
2018	---	17,675,777	14,765,065	---	12,500	750,000	75,000	580,000
2019	---	17,675,777	14,765,065	---	12,500	750,000	62,500	567,500
2020	---	17,675,777	14,765,065	---	12,500	750,000	50,000	555,000
2021	---	17,675,777	14,765,065	---	12,500	750,000	37,500	542,500
2022	---	17,675,777	14,765,065	---	12,500	750,000	25,000	530,000
2023	---	17,675,777	14,765,065	---	12,500	750,000	12,500	517,500
2024	---	17,675,777	14,765,065	---	12,500	750,000	0	505,000
Total	40,856,987	17,675,777	14,765,065	0	750,000	750,000	0	41,606,987
								592,030

1/ The annual payment by the District shown for the years 1973 through 2012 is not a fixed amount, but will vary from year to year depending on the amount of additional water purchased by the District in excess of 2 acre-feet per acre irrigated. The estimated \$15,000 annually has been computed on the basis of an average annual purchase of 24,000 acre-feet of additional water

at an estimated charge of 62½ cents per acre-foot. The latter charge includes 12½ cents per acre-foot to pay the estimated \$120,000 total of water service charges for the years 1963 through 1972, deferred for later payment. The annual payments shown for the years 2013 through 2024 are fixed amounts to return the District's rehabilitation and betterment cost obligation.

KING HILL PROJECT

IDAHO

The King Hill project was originally promoted under the Carey Act in 1908. The Secretary determined the project practicable as a Reclamation project on July 2, 1917, pursuant to appropriation act of June 12, 1917 (40 Stat. 105, 148), but it was not a success.

In 1917, the Bureau of Reclamation undertook repair and reconstruction work on the irrigation system of the project as a war measure to increase crop production. The King Hill Irrigation District contracted with the United States to repay a total obligation of \$2 million, but was subsequently unable to make payments.

The project was difficult and costly to operate, the soils were low in fertility, and the farmers were not prosperous. The District took over operation and maintenance in 1926, but was unable to collect sufficient money to keep the system in repair. In 1929, a committee which made an economic survey of certain Reclamation projects concluded that the King Hill project was an insolvent enterprise and recommended that no further expenditures be made and that the entire indebtedness owing by the King Hill Irrigation District to the United States be written off.

The act of June 18, 1934 (48 Stat. 980) authorized the Secretary of the Interior to enter into a contract

with the King Hill Irrigation District, by which the District and the United States would rescind previous agreements and be released from all obligations, and the United States would convey to the District all of its interest in the King Hill project, including water rights and any real estate acquired or held.

The United States entered into such a contract on September 28, 1934, with the King Hill Irrigation District. The amount of \$1,987,854.04, which has been charged off as a loss to the Reclamation Fund, consists of the following:

Plant costs	\$1,905,918.80
Less contributions	8,025.66
Less miscellaneous receipts	20,161.61
Net costs	\$1,877,731.53
Funded charges:	
Operation and maintenance	97,199.14
Interest and penalties	12,923.37
Total	1,987,854.04

The King Hill Irrigation District is now operating the area as a private project. Subsequently, the District obtained a Small Reclamation Projects loan, as described elsewhere in this report.

KLAMATH PROJECT

OREGON-CALIFORNIA

The Secretary of the Interior authorized the Klamath project on May 15, 1905. Construction work started in 1906, and water was delivered to lands of the first unit on May 16, 1907. In succeeding years the area of land receiving water has been constantly increasing until now the lands served total approximately 223,000 acres. Full irrigation supplies are available to approximately 133,000 acres of project lands, with the balance supplied under the Warren Act and other special contracts.

The irrigable lands of the project are located in Klamath County in southcentral Oregon, and Siskiyou and Modoc Counties in northcentral California. The project works supply irrigation water to the project lands and also provide flood control on Lost River for the protection of lands in the Tule Lake Basin, which originally received all of the flow of Lost River. The project water supply comes from three storage reservoirs—Clear Lake, Gerber, and Upper Klamath Lake, which have a total capacity of 1,494,400 acre-feet.

In 1969, the irrigable area for service totaled 223,225 acres and 201,939 acres were irrigated with a gross crop value of \$25,506,186 and an average value per irrigated acre of \$126.31.

LANGELL VALLEY DIVISION

The United States has constructed irrigation works, including Clear Lake and Gerber Reservoirs, for the irrigation of lands in the Horsefly Irrigation District and the Langell Valley Irrigation District.

The districts which comprise the Langell Valley division have contracted to repay a total of \$969,532. Repayments began in 1928 and as of June 30, 1969, \$773,200 had become due and \$759,697 had been paid.

Moratoriums and amendatory contracts have extended the original repayment period to 1983. Certain lands were placed in class 6 pursuant to the act of May 25, 1926, and these construction charges have been charged off as a loss to the Reclamation Fund.

Rehabilitation and betterment work was performed on the pumping plants during fiscal year 1954. Additional rehabilitation work was started in 1968 under a separate contract.

The districts operate the distribution systems, and the United States operates the reservoirs.

Determination of repayment obligations as of June 30, 1969:

Cost	\$1,030,623
Penalty funded	947
Subtotal	1,031,570
Miscellaneous income	28,255
Repayment contracts	1,024,532
Subtotal	1,052,787
Surplus not applied	21,217

CONTRACTS

- 1922, March 27: Contract I1r-112 with Horsefly Irrigation District and Langell Valley Irrigation District for construction of irrigation system for lands in Langell Valley. Estimated cost \$474,000, payable in 40 semiannual graduated installments.
- 1923, June 18: Contract with Langell Valley Irrigation District for construction of Gerber Reservoir and additional irrigation works at estimated cost of \$700,000, payable in 40 semiannual graduated installments.
- 1927, July 1: Contract with Langell Valley Irrigation District. Extended repayment period to 40 years and provided for actual expenditures of \$40,200 for drainage.
- 1929, May 7: Contract with Horsefly Irrigation District, extending repayment period to 39 years.
- 1931, April 13: Contract with Horsefly Irrigation District and Langell Valley Irrigation District. Contract provides for dredging Clear Lake channel and construction of Dry Lake pumping plant.
- 1951, May 17: Contract with Langell Valley Irrigation District for inclusion of lands and adjustment of water rights.
- 1953, November 13: Contract with Langell Valley Irrigation District for rehabilitation and betterment in the amount of \$40,200.26.
- 1965, July 29: Supplementary and amendatory contract I1r-112

REPAYMENT OF RECLAMATION PROJECTS

with Langell Valley Irrigation District restating unpaid obligation as of July 1, 1965, to be \$314,070.65, with final payment due in 1983.

1967, September 20: Rehabilitation and betterment contract 14-06-200-3506A with Langell Valley Irrigation District in amount of \$55,000, with first payment due December 31, 1969.

Summary of status of repayment contracts:

Total value of contracted repayment	\$969,532
Total matured charges	773,200
Total matured charges repaid	759,697
Total matured charges unpaid	13,503

CONSTRUCTION REPAYMENT HISTORY—LANGELL VALLEY DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$ 474,000							
1924	1,174,000							
1925	1,204,400							
1926	1,204,400							
1927	1,204,400							
1928	¹ 938,094	\$ 4,969		\$ 4,969	\$ 2,658		\$ 2,658	\$ 2,658
1929	938,094	9,215		9,215	2,982	\$ 2,312	5,294	7,952
1930	938,094	8,492		8,492	0	6,233	6,233	14,185
1931	938,094	8,491		8,491	0	4,042	4,042	18,227
1932 ²	955,426	7,693		7,693	0	2,712	2,712	20,939
1933 ²	955,731	2,672	³ \$18,221	³ 15,549	668		668	21,607
1934 ²	926,587	327	³ 2,043	³ 1,716	160	³ 339	³ 179	21,428
1935 ²	927,778	5,879		5,879	144	1,403	1,547	22,975
1936 ²	926,262	444	³ 3,183	³ 2,739	444	1,316	1,760	24,735
1937 ²	926,262	7,988		7,988	7,042		7,042	31,777
1938	926,262	8,921	³ 3,776	5,145	5,145	946	6,091	37,868
1939	926,262	8,921	³ 685	8,236	8,921	³ 685	8,236	46,104
1940	926,262	8,921		8,921	8,921		8,921	55,025
1941	926,262	9,999		9,999	9,999		9,999	65,024
1942	926,262	11,927		11,927	11,927		11,927	76,951
1943	926,262	12,776		12,776	12,776		12,776	89,727
1944	926,262	12,777		12,777	12,777		12,777	102,504
1945	926,262	12,776		12,776	7,443		7,443	109,947
1946	926,262	13,494		13,494	7,706	5,333	13,039	122,986
1947	926,262	17,704		17,704	10,594	5,788	16,382	139,368
1948	926,262	17,145		17,145	8,620	7,110	15,730	155,098
1949	926,262	17,604		17,604	17,604	8,525	26,129	181,227
1950	926,262	17,220		17,220	16,084		16,084	197,311
1951	⁴ 894,992	34,528		34,528	25,404	1,136	26,540	223,851
1952	894,992	22,161		22,161	22,161	9,124	31,285	255,136
1953	894,992	23,637		23,637	23,637		23,637	278,773
1954	⁵ 959,992	30,617		30,617	30,617		30,617	309,390
1955	⁶ 935,192	26,717		26,717	26,717		26,717	336,107
1956	935,192	15,437		15,437	15,414		15,414	351,521
1957	935,192	35,924		35,924	35,924		35,924	387,445
1958	935,193	29,722		29,722	29,722	23	29,745	417,190
1959	935,193	37,871		37,871	37,871		37,871	455,061
1960	935,193	22,204		22,204	22,204		22,204	477,265
1961	935,193	45,280		45,280	45,280		45,280	522,545
1962	935,193	32,337		32,337	17,074		17,074	539,619
1963	935,193	33,554		33,554	33,554	15,263	48,817	588,436
1964	935,193	32,515		32,515	32,515		32,515	620,951
1965	935,193	32,170		32,170	32,170		32,170	653,121
1966	969,532	32,011		32,011	32,011		32,011	685,132
1967	969,532	29,398		29,398	29,398		29,398	714,530
1968	969,532	29,152		29,152	29,152	-13,564	15,588	730,118
1969	969,532	29,518		29,518	29,518	61	29,579	759,697
Total		801,108	-27,908	773,200	702,958	56,739	759,697	
Collected				759,697				
Uncollected				13,503				

¹ Decrease in obligation due to adjustment of estimated cost to actual cost.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$5,121; 1931, \$4,328; 1932, \$3,954; 1933, \$9,335; 1934, \$3,941; 1935, \$3,522; 1936, \$2,366; 1937, \$4,461 under act of Aug. 21, 1937.

³ Decrease. Decreases are due to deferment of charges under the relief acts.

⁴ Decrease. Decreases due to chargeoff for land classification.

⁵ Increase. Execution of rehabilitation contract.

⁶ Decrease. Adjustment of rehabilitation contract to actual costs.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—LANGELL VALLEY DIVISION

Fiscal year	Accruals	Collections
1923		
1924		
1925		
1926		
1927		
1928	\$643	\$643
1929	1,389	1,389
1930	1,657	1,657
1931	1,624	1,624
1932	1,760	1,760
1933	1,565	1,565
1934	1,678	1,678
1935	843	843
1936	1,163	1,163
1937	1,231	1,231
1938	1,140	1,140
1939	1,604	1,604
1940	1,880	1,880
1941	1,750	1,750
1942	1,625	1,625
1943	1,650	1,650
1944	1,925	1,925
1945	2,275	2,275
1946	2,650	2,650
1947	3,080	3,080
1948	3,080	3,080
1949	3,210	3,210
1950	3,340	3,340
1951	3,540	3,540
1952	3,740	3,740
1953	5,072	5,072
1954	5,952	5,952
1955	5,932	5,932
1956	5,620	5,620
1957	4,804	4,804
1958	5,766	5,738
1959	5,130	5,118
1960	4,515	4,537
1961	4,340	4,334
1962	5,165	2,333
1963	4,940	7,784
1964	3,945	3,951
1965	4,332	4,338
1966	4,216	2,110
1967	5,010	7,116
1968	5,981	2,981
1969	5,754	5,754
Total	136,516	133,516

MAIN DIVISION

The Klamath Irrigation District and individual water-right applicants have contracted obligations of \$2,293,997 to repay the United States. Repayments began in 1909. As a result of the passage of the Omnibus Adjustment Act in 1926, the District's obligation was rescheduled in a contract providing for payment over a 40-year period, replacing the individual water-right applications. A total of \$2,285,766 had become due at the close of fiscal year 1969.

The division has been operated by the Klamath Irrigation District since January 1, 1955.

Determination of repayment obligations as of June 30, 1969:

Cost	\$2,624,523
Operation and maintenance funded	65,166
Interest funded	15,444
Subtotal	2,705,133
Less:	
Repayment realized from other sources	52,845
Contributions	344,177
Chargeoff	63,473
Excess income over expense	-33,616
Subtotal	426,879
Plus: Surplus not applied	15,743
Total repayment contracts	2,293,997

PUBLIC NOTICES AND CONTRACTS

- 1908, November 18: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1915, September 15: Public notice. Supplemental construction covering drainage work, \$12.50 per acre payable additional installments after 20-year repayment period.
- 1917, February 12: Public notice for second unit. Construction

charge \$30 per acre, payable in 20 graduated annual installments.

- 1917, March 31: Public notice for third unit. Construction charge \$39 and \$45 per acre, payable in 20 graduated annual installments.
- 1918, July 16: Contract with Klamath Irrigation District. District assumed obligations under individual water-right applications.
- 1920, June 28: Contract with Klamath Irrigation District. Supplemental construction covering concrete lining of the "C" canal, cost \$175,000, payable in four semiannual installments, beginning in 1937 (for lands outside unit 1) and 1941 (for lands within unit 1).
- 1922, September 29: Public notice for Tule Lake division. Construction charge \$90 per acre, payable in 20 graduated annual installments.
- 1927, June 25: Contract with Klamath Irrigation District, extending repayment period to 40 years.
- 1928, November 24: Contract with Klamath Irrigation District for construction of drainage works at estimated cost of \$300,000, payable in semiannual installments, 1938 to 1956.
- 1937, September 30: Contract with Enterprise Irrigation District for license to use power site on "C" canal. Obligation \$7,732, payable in 30 years.
- 1950, June 2: Contract with Klamath Irrigation District for construction of pumping plants and enlargement of C-4 lateral at estimated cost of \$150,000, payable in semiannual installments, 1952 to 1961. Actual costs and amount to be repaid, \$146,621.11.
- 1954, November 29: Contract for transfer of operation and maintenance.
- 1962, April 25: Contract with Klamath Basin Improvement District for a water right under the provisions of the Warren Act for approximately 10,000 acres.

Summary of status of repayment contract:

Total value of contracted repayment	\$2,293,997
Total matured charges	2,285,766
Total matured charges repaid	2,285,766
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—MAIN DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$82,653		\$82,653	\$165		\$165	\$165
1910		61,979		61,979		\$65,449	65,449	65,614
1911		83,594		83,594	677	73,939	74,616	140,230
1912		79,301		79,301	282	66,128	66,410	206,640
1913		71,823		71,823	984	48,123	49,107	255,747
1914		74,157	¹ \$59,938	14,219	2,131	6,178	8,309	² 264,056
1915	\$788,374	2,871	¹ 114,300	¹ 111,429	119	12,777	12,896	² 276,952
1916	790,171	14,953	¹ 2,522	12,431	10,911	2,348	13,259	290,211
1917	³ 1,364,127			8,699			10,468	300,679
1918	1,584,281			39,376			39,991	340,670
1919	1,640,166	154,856		30,400	118,951		10,397	351,067
1920				35,972			33,890	384,957
1921	⁴ 1,818,438			40,409			24,205	409,162
1922	1,820,743	23,680		23,680	17,542	22,737	40,279	449,441
1923	1,876,002	52,937	¹ 291	52,646	26,635	22,199	48,834	498,275
1924	1,862,904	54,992	¹ 6,500	48,492	26,274	20,848	47,122	545,397
1925	1,862,861	57,115	12	57,127	29,042	28,731	57,773	603,170
1926	1,864,235	58,052	¹ 1,456	56,596	15,483	26,731	42,214	645,384
1927	1,867,509	39,352	¹ 9,601	29,751	29,231	32,986	62,217	707,601
1928	1,859,905	36,886	¹ 6,616	30,270	16,108	3,500	19,608	727,209
1929	1,853,249	36,421	¹ 1,584	34,837	1,515	13,955	15,470	742,679
1930	⁵ 2,152,209	36,299	¹ 240	36,059	2,103	39,905	42,008	784,687
1931	2,146,303	36,137		36,137	1,280	17,511	18,791	803,478
1932	2,216,607	2,431	¹ 44,757	¹ 42,326	1,494	6,723	8,217	⁶ 811,695
1933	2,206,614	715	¹ 4,042	¹ 3,327	627	¹ 2,989	¹ 2,362	⁶ 809,333
1934	2,207,407	127	¹ 1,165	¹ 1,038	105	¹ 1,130	¹ 1,025	⁶ 808,308
1935	2,209,209	11,413	142	11,555	3,944	7,618	11,562	⁶ 819,870
1936	2,206,738	890	50	940	801	50	851	⁶ 820,721
1937	2,173,665	34,716	¹ 17,895	16,821	14,083	¹ 17,828	¹ 3,745	⁶ 816,976
1938	2,173,665	51,949		51,949	21,172	21,003	42,175	859,151
1939	2,171,871	61,369		61,369	30,741	30,769	61,510	920,661
1940	2,171,871	61,335		61,335	49,578	30,526	80,104	1,000,765
1941	2,172,767	61,286		61,286	30,677	11,798	42,475	1,043,240
1942	2,172,767	61,740		61,740	48,810	30,710	79,520	1,122,760
1943	2,172,767	62,555		62,555	49,644	12,924	62,568	1,185,328
1944	2,172,767	62,586		62,586	55,430	12,652	68,082	1,253,410
1945	2,172,767	62,582		62,582	57,935	7,146	65,081	1,318,491
1946	2,172,767	62,490		62,490	31,451	4,603	36,054	1,354,545
1947	2,169,372	60,748		60,748	60,744	30,994	91,738	1,446,283
1948	2,169,372	62,482		62,482	62,482	4	62,486	1,508,769
1949	2,169,372	51,808		51,808	51,808		51,808	1,560,577
1950	2,172,316	52,508		52,508	52,508		52,508	1,613,085
1951	2,172,316	46,155		46,155	46,155		46,155	1,659,240
1952	⁷ 2,298,361	61,613		61,613	61,613		61,613	1,720,853
1953	2,298,293	56,056		56,056	56,056		56,056	1,776,909
1954	2,276,189	95,754		95,754	95,754		95,754	1,872,663
1955	2,276,189	57,508		57,508	57,508		57,508	1,930,171
1956	2,275,348	52,362		52,362	52,362		52,362	1,982,533
1957	2,275,348	29,662	-76,638	-46,976	29,662	-76,638	-46,976	1,935,557
1958	2,275,348	57,217	76,638	133,855	57,217	76,638	133,855	2,069,412
1959	2,275,348	47,113		47,113	47,113		47,113	2,116,525
1960	2,279,136	39,044		39,044	39,044		39,044	2,155,569
1961	2,279,136	30,976		30,976	30,976		30,976	2,186,545
1962	2,279,136	18,235		18,235	18,235		18,235	2,204,780
1963	2,279,136	14,930		14,930	14,930		14,930	2,219,710
1964	2,280,325	12,021		12,021	12,021		12,021	2,231,731
1965	2,280,325	6,006		6,006	6,006		6,006	2,237,737
1966	2,280,325	2,622		2,622	2,622		2,622	2,240,359
1967	2,280,325	344	30,704	31,048	344	30,704	31,048	2,271,407
1968	2,280,325	343		343	343		343	2,271,750
1969	2,293,997	14,016		14,016	14,016		14,016	2,285,766
Total		2,525,765	-239,999	2,285,766	1,565,444	720,322	2,285,766	

¹ Decrease. Decreases are due to cancellation of water-right applications and to funding of delinquent charges.

² 1914. Reclamation Extension Act of Aug. 13, 1914, delinquent charges funded.

³ Increase of obligation due to opening of second and third units.

⁴ Increase of obligation due to 1920 contract.

⁵ Increase of obligation due to 1928 contract.

⁶ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years, 1930, \$68,135; 1931, \$54,733; 1932, \$28,118; 1933, \$27,155; 1934, \$26,661; 1935, \$26,638; 1936, \$13,376.

⁷ Increase of obligation due to 1950 contract.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—MAIN DIVISION

Fiscal year	Accruals	Collections
1909	\$21,506	\$14,534
1910	16,405	22,334
1911	23,089	22,740
1912	20,534	19,495
1913	19,448	4,725
1914	18,417	31,247
1915	¹ 1,357	1,366
1916	31,685	27,628
1917	27,412	28,328
1918	30,805	29,562
1919	46,938	41,383
1920	52,049	32,531
1921	82,854	30,992
1922	37,643	82,764
1923	63,187	49,923
1924	52,633	75,713
1925	60,054	55,567
1926	66,856	57,767
1927	¹ 11,845	38,958
1928	92,137	42,357
1929	118,413	118,376
1930	110,757	110,938
1931	77,385	77,407
1932	10,922	50,833
1933	49,349	49,720
1934	40,846	40,912
1935	43,872	43,894
1936	44,072	43,975
1937	25,923	25,918
1938	52,779	52,815
1939	54,972	54,961
1940	54,072	54,074
1941	53,170	53,163
1942	53,174	53,242
1943	60,555	60,528
1944	71,165	71,156
1945	78,435	78,223
1946	86,485	86,673
1947	98,172	98,246
1948	98,372	98,372
1949	105,412	105,412
1950	139,259	139,259
1951	246,148	246,148
1952	84,378	84,378
1953	171,391	171,391
1954	177,903	177,903
1955	95,269	95,269
1956	3,801	3,801
1957	8,285	8,285
1958	9,019	9,019
1959	8,523	8,523
1960	6,260	6,260
1961	7,569	7,569
1962	9,217	9,217
1963	6,465	6,465
1964	5,668	5,668
1965	7,531	7,531
1966	5,133	5,133
1967	4,605	4,605
1968	5,970	-24,030
1969	31,981	37,570
Total	3,173,127	3,148,716
Uncollected		24,411

¹ Decrease.

PUMPING DIVISION

Surrounding and contiguous to the Main division land are some 17,000 irrigable acres which cannot be reached directly by gravity systems. Consequently, five small irrigation districts and 92 individuals have contracted under the Warren Act for the right to pump water, principally from the canals of the Main division. These irrigation districts have contracted with the United States for the repayment of a total of \$504,808 for their share of the costs of construction allocated to the Pumping division. Repayments due from 1920 to June 30, 1969, total \$432,686. Collections on the construction accounts to June 30, 1969, have been \$432,230, leaving an unpaid balance of \$456.

Determination of repayment obligations as of June 30, 1969:

Construction cost	\$963,021
Penalty funded	1,279
Total	964,300
Less: Miscellaneous income	6,190
Subtotal	958,110
Plus: Surplus not applied	7,658
Total	965,768
Total Warren Act repayment contract	504,808
Total loan program repayment contract	460,960

CONTRACTS

1918, December 21: Contract Ilr-403 with Pine Grove Irrigation District for water right for 954 acres at \$16 per acre, payable in 20 graduated annual installments.

1920, July 31: Contract Ilr-405 with Upper Van Brimmer Drainage District for drainage and betterments in

amount of \$28,050, payable in 20 graduated annual installments.

- 1920, October 5: Contract Ilr-399 with Enterprise Irrigation District for water right for 2,981 acres at \$16 per acre, payable in 20 graduated annual installments.
- 1922, September 9: Contract Ilr-195 with Malin Irrigation District for water right for approximately 4,000 acres at \$34 per acre, payable in 20 annual installments.
- 1922, October 6: Contract with Shasta View Irrigation District for water right for 4,200 acres at \$34 per acre, payable in 20 graduated annual installments. Amended by contract of June 29, 1927, reducing acreage to 3,856 and extending repayment period to 40 years.
- 1922, October 24: Contract Ilr-174 with Sunnyside Irrigation District for water right for approximately 789 acres at \$34 per acre, payable in 20 annual installments.
- 1927, June 6: Contract with Sunnyside Irrigation District, extending repayment period to 40 years.
- 1927, July 5: Contract with Malin Irrigation District, extending repayment period to 40 years.
- 1930, August 5: Contract with Shasta View Irrigation District, extending time for payment of delinquent charges and penalties.
- 1935, March 18: Contract with Enterprise Irrigation District, extending repayment period to 40 years. Ninety-two contracts with individual pumpers at \$34 per acre. Various dates. Payable in 40 graduated annual installments.
- 1948, August 20: Contract with Shasta View Irrigation District, adjusting repayment amount and schedule.
- 1955, December 21: Amendatory contract with Shasta View Irrigation District to provide for inclusion of land.

Summary of status of repayment contracts:

Total value of contracted repayment	\$504,808
Total matured charges	432,686
Total matured charges repaid	432,230
Total matured charges unpaid	456

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—PUMPING DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1919	\$15,264							
1920	15,264	\$763		\$763	\$763		\$763	\$763
1921	62,957	0		0	0		0	763
1922	68,567	2,385		2,385	0		0	763
1923	374,193	112		112	112		112	875
1924	374,193	112		112	56		56	931
1925	374,513	907		907	144	\$56	200	1,131
1926	374,513	907		907	875	2,385	3,260	4,391
1927	374,513	3,404		3,404	3,292	32	3,324	7,715
1928	387,805	4,810		4,810	4,804	763	5,567	13,282
1929	397,781	5,556		5,556	3,010	6	3,016	16,298
1930	399,923	5,648		5,648	3,422	2,385	5,807	22,105
1931	423,083	5,907		5,907	3,268	2,385	5,653	27,758
1932	434,151	2,340	¹ \$3,076	¹ 736	1,907	¹ 590	1,317	29,075
1933	434,625	2,403	¹ 2,629	¹ 226	0	¹ 1,753	¹ 1,753	27,322
1934	434,656	416	¹ 2,026	¹ 1,610	0	¹ 92	¹ 92	27,230
1935	439,387	4,650	¹ 561	4,089	1,669		1,669	28,899
1936	455,698	5,637	¹ 707	4,930	4,901	1,857	6,758	35,657
1937	464,180	7,503	¹ 92	7,411	6,805		6,805	42,462
1938	473,383	6,668	¹ 655	6,013	6,324	405	6,729	49,191
1939	474,335	7,670		7,670	6,787	408	7,195	56,386
1940	488,928	7,735		7,735	7,218	785	8,003	64,389
1941	488,928	8,058		8,058	6,345	963	7,308	71,697
1942	489,588	8,244		8,244	7,865	1,545	9,410	81,107
1943	489,588	11,062		11,062	10,989	526	11,515	92,622
1944	497,177	9,266		9,266	9,013	223	9,236	101,858
1945	497,177	9,335		9,335	6,171	303	6,474	108,332
1946	497,177	9,631		9,631	9,187	3,420	12,607	120,939
1947	497,177	9,791		9,791	8,457	444	8,901	129,840
1948	497,177	9,650		9,650	6,860	1,334	8,194	138,034
1949	501,649	9,693		9,693	8,565	2,790	11,355	149,389
1950	501,649	14,125		14,125	11,621	1,128	12,749	162,138
1951	501,649	16,598		16,598	15,883	2,504	18,387	180,525
1952	501,649	13,276		13,276	12,911	715	13,626	194,151
1953	² 504,468	14,780		14,780	14,780	36	14,816	208,967
1954	504,468	14,779		14,779	14,779	15	14,794	223,761
1955	504,468	14,779		14,779	14,779		14,779	238,540
1956	504,468	14,779		14,779	14,779	6	14,785	253,325
1957	504,468	8,285	6,743	15,028	8,054	6,743	14,797	268,122
1958	504,468	14,794		14,794	14,510	539	15,049	283,171
1959	504,468	14,704		14,704	14,660	284	14,944	298,115
1960	504,468	14,757		14,757	14,485	44	14,529	312,644
1961	504,468	14,086		14,086	13,708	272	13,980	326,624
1962	504,468	13,412		13,412	13,002	378	13,380	340,004
1963	504,468	13,107		13,107	13,066	410	13,476	353,480
1964	504,808	14,017		14,017	13,798	2	13,800	367,280
1965	504,808	13,184		13,184	13,222	2	13,224	380,504
1966	504,808	13,409		13,409	13,389	20	13,409	393,913
1967	504,808	13,280		13,280	13,135		13,135	407,048
1968	504,808	12,834		12,834	12,653		12,653	419,701
1969	504,808	12,441		12,441	12,529		12,529	432,230
Total		435,689	-3,003	432,686	398,552	33,678	432,230	
Collected				432,230				
Uncollected				456				

¹ Decrease. Decreases are due to deferments under relief acts.² Increase. Adjustment between divisions.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—PUMPING DIVISION

Fiscal year	Accruals	Collections
1919		
1920	\$76	\$76
1921	77	77
1922	250	174
1923	281	205
1924	284	231
1925	269	186
1926	488	621
1927	256	79
1928	6,437	6,725
1929	9,246	7,445
1930	8,464	6,932
1931	4,564	7,218
1932	8,409	5,817
1933	4,054	4,077
1934	4,601	3,941
1935	5,112	4,873
1936	4,549	4,530
1937	4,845	5,090
1938	5,600	5,547
1939	6,024	5,995
1940	6,015	6,101
1941	6,055	6,006
1942	6,032	6,075
1943	7,344	7,097
1944	8,438	8,621
1945	9,292	8,980
1946	10,131	9,984
1947	11,488	15,978
1948	12,200	12,200
1949	15,788	15,788
1950	39,436	39,436
1951	41,188	41,188
1952	22,929	22,929
1953	34,062	34,062
1954	34,563	34,563
1955	8,791	8,791
Total	347,638	347,638

TULE LAKE DIVISION¹

The Tule Lake division consists of former public lands and State lands. The State lands were ceded to the United States by the States of Oregon and California in 1905. The unwatering and the development for settlement of these lands which formerly were a part of the Tule Lake bed have been a gradual process since 1905. The unwatering of the lands and their protection from flooding have been accomplished by (a) construction of reservoirs upstream on the Lost River, (b) diversion of Lost River flood flows to the Klamath River by means of a canal upstream from the lands in question, (c) pumping of water from Tule Lake, and (d) construction of Klamath Straits drain augmented by pumping plants to carry excess water from Lower Klamath Lake to the Klamath River. Because of the successful experience in reclaiming the lands by this process, the capacity of these works has been increased from time to time by additional construction so that additional areas could be brought under irrigation farming.

The Tule Lake division lands were opened for settlement under 11 different public notices and orders, the first of which was in 1922 and the last in 1948. About 44,000 irrigable acres making up 613 farm units have been homesteaded.

The first opening in 1922 (Public Notice No. 13) announced a construction charge of \$90 per irrigable acre. In 1923, Order No. 14 suspended Public Notice No. 13 pending a review of estimated construction cost chargeable to the project. Order No. 19 opening additional lands in 1927 notified the water users that the division would be operated on a water rental basis until a district was formed and a joint liability contract executed. This order also announced a construction charge of \$88.35 per acre and explained its basis. The \$88.35 per acre charge was to apply if a district were organized and assumed the responsibility for operation and maintenance of the irrigation works. If no district were formed, the charge was to be \$100.55 per acre. Each subsequent public notice carried a clear statement of construction charges against the lands being opened (as did Public Notice No. 13), as well as provisions for the entryman to agree to the inclusion of his lands within an irrigation district.

The Tule Lake Irrigation District was organized in 1952 and has entered into a repayment contract covering the lands within the Tule Lake division in the State of California. The contract was executed on September

10, 1956, after being specifically authorized in the act of August 1, 1956 (70 Stat. 799). With regard to the 41,695 irrigable acres already settled within the District, the contract provides for the payment of \$3,544,100 (\$85 per acre) in equal semiannual installments over a 40-year period, commencing January 1, 1957. The district's obligation is to be increased at the rate of \$85 per acre for any additional public lands which may be settled in the future. Tule Lake division lands (2,079 acres) in Oregon have a similar \$85 per acre repayment obligation, which is to be collected by the Klamath Irrigation District and paid to the United States in accordance with the joint liability contract of June 25, 1927, between the United States and the Klamath Irrigation District. In accordance with the act of August 1, 1956 (70 Stat. 799), which authorized the Tule Lake Irrigation District repayment contract, the Tule Lake division lands in both the Klamath and the Tule Lake Irrigation Districts are to share in a portion of future revenues accruing from the leasing of public lands in the Tule Lake division. During the time that construction charges are being paid, but in no event after the year 2020, the sum of 30 percent annually of all net lease revenues received but not more than \$50,000 per year is to be credited on an equal per acre basis on the construction charges payable to the United States. After all construction charges are repaid, the water users will receive annually 10 percent of all net lease revenues. While the actual construction charge to be paid after the lease credits have been applied will depend in part upon when and if additional lands are settled, the number of acres opened for settlement, and the amount of future annual lease revenues, it is estimated that the actual cash repayment by the water users will average from \$35 to \$50 per acre. The repayment of all Tule Lake division costs in excess of construction charges payable by the water users will be accomplished by the application of accumulated and future lease revenues or other credits due to the Tule Lake division. Lease and other revenues accumulated to June 30, 1969, approach \$11 million.

The Langell Valley Irrigation District entered into a contract for the repayment of \$32,067 of costs as charged to Modoc unit for channelization of Lost River which granted them water for additional areas. Individuals also contracted for additional areas to be served from such channelization and agreed to repay \$78,923 as expended. In addition to these contracts, \$5,768,170 has been credited towards repayment of the cost of this unit which has been collected as agricultural lease revenues of areas within the drained area. This appli-

¹ Including 2,089.4 acres in Klamath Irrigation District.

cation is in accordance with the 1941 appropriation act.

The remaining costs of the units are to be repaid from lease revenues.

The Tule Lake Irrigation District assumed operation and maintenance activities of the systems of this unit on January 1, 1957, in accordance with contract 14-06-200-5954, dated September 10, 1956.

CONTRACTS

Individual water-right applications for 2,417.9 acres in California under Public Notice No. 13.

Central Pacific Railroad Co. and Great Northern Railroad Co. for purchase of right-of-way, 293.6 acres at \$100.55 per acre.

Fifteen contracts for permanent water rights from Lost River. Contract with Colonial Realty Co., covering exchange of Main division lands for Tule Lake division lands and purchase of water rights for 1,190 acres at cost of \$40,460.

Contract with Tule Lake Irrigation District, executed pursuant to Public Law 84-877; signed September 10, 1956.

Determination of repayment obligations as of June 30, 1969:

Construction cost	\$14,379,297
Corollary costs	441,935
Penalties funded	326

Subtotal	14,821,558
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Less:

Contributions	238
Miscellaneous revenue	726,229
Lease revenues	10,141,496
Repayment realized from other sources	618

Subtotal	10,868,581
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Total repayment contracts	3,952,977
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Summary of status of repayment contracts:

Total value of contracted repayment	\$3,952,977
Total matured charges	1,452,457
Total matured charges repaid	1,396,869
Total matured charges unpaid	55,588

CONSTRUCTION REPAYMENT HISTORY—TULE LAKE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1923	\$224,388	\$11,219		\$11,219	\$11,219		\$11,219	\$11,219
1924	215,964		¹ \$421	¹ 421		¹ \$421	¹ 421	10,798
1925	214,218		¹ 87	¹ 87		¹ 87	¹ 87	10,711
1926	217,980	188		188	188		188	10,899
1927	222,012	202		202	202		202	11,101
1928	221,076	1,048		1,048		¹ 45	¹ 45	11,056
1929	221,076	1,095		1,095	500	1,093	1,593	12,649
1930	235,906	17,636		17,636	16,803	596	17,399	² 30,048
1931	235,906	1,095		1,095		832	832	30,880
1932	235,798	558		558		538	538	31,418
1933	248,816	12,981	¹ 931	12,050	12,981		12,981	³ 44,399
1934	247,535	302	¹ 184	118	302		302	44,701
1935	247,739	10		10	10		10	44,711
1936	251,597	4,206		4,206	3,828		3,828	48,539
1937	292,330	1,662		1,662	1,294	194	1,488	50,027
1938	292,438	1,390	¹ 552	838	1,012		1,012	51,039
1939	293,257	1,430		1,430	1,430	377	1,807	52,846
1940	295,647	1,430		1,430	95		95	52,941
1941	296,836	1,983		1,983	508		508	53,449
1942	296,836	1,231	¹ 736	495	164	10	174	53,623
1943	296,836	1,230		1,230	124		124	53,747
1944	296,836	1,230		1,230	1,182	4,241	5,423	59,170
1945	296,836	1,230		1,230	1,135		1,135	60,305
1946	296,836	1,230		1,230	1,180	89	1,269	61,574
1947	296,836	1,230		1,230	1,230	101	1,331	62,905
1948	297,692	1,274		1,274	1,274		1,274	64,179
1949	305,360	8,941		8,941	8,941		8,941	73,120
1950	305,360	1,157		1,157	1,062		1,062	74,182
1951	305,424	2,803		2,803	2,702	95	2,797	76,979
1952	305,424	1,191		1,191	1,039	101	1,140	78,119
1953	⁴ 366,599	39,748		39,748	39,748		39,748	117,867
1954	408,146	1,571		1,571	1,571	79	1,650	119,517
1955	361,703	1,571		1,571	1,571	73	1,644	121,161
1956	478,340	1,571		1,571	1,571		1,571	122,732
1957	3,805,131	140,732	69,895	210,627	118,263	69,895	188,158	310,890
1958	⁴ 3,952,977	98,256	-69,895	28,361	61,754	-47,426	14,328	325,218
1959	3,952,977	89,469		89,469	50,337	36,502	86,839	412,057
1960	3,952,977	110,295		110,295	70,268	39,132	109,400	521,457
1961	3,952,977	87,646		87,646	45,652	40,027	85,679	607,136
1962	3,952,977	103,217		103,217	63,283	41,994	105,277	712,413
1963	3,952,977	99,433		99,433	60,260	39,934	100,194	812,607
1964	3,952,977	102,050		102,050	51,216	50,000	101,216	913,823
1965	3,952,977	101,010		101,010	37,074	50,000	87,074	1,000,897
1966	3,952,977	100,625		100,625	64,282	50,000	114,282	1,115,179
1967	3,952,977	100,632		100,632	47,103	50,000	97,103	1,212,282
1968	3,952,977	98,948		98,948	51,610	50,000	101,610	1,313,892
1969	3,952,977	97,412		97,412	32,977	50,000	82,977	1,396,869
Total		1,455,368	-2,911	1,452,457	868,945	527,924	1,396,869	
Collected				1,396,869				
Uncol- lected				55,588				

¹ Decrease. Decreases are due to individuals changing from a permanent water right to water-rental basis.

² 1930. Includes purchase right-of-way for Central Pacific R.R.

³ 1933. Includes purchase right-of-way for Great Northern R.R.

⁴ Increase. Adjustment between divisions.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—TULE LAKE DIVISION

Fiscal year	Accruals	Collections
1923		
1924	\$2,875	\$1,455
1925	3,599	2,478
1926	3,605	3,663
1927	3,534	4,280
1928	1,060	2,476
1929	561	882
1930	615	510
1931	561	550
1932	223	0
1933	¹ 52	0
1934	88	375
1935	110	2
1936	107	105
1937	1,765	269
1938	1,765	3,263
1939	1,774	1,881
1940	179	168
1941	219	218
1942	102	91
1943	102	79
1944	2,066	2,078
1945	2,244	2,233
1946	2,422	2,432
1947	9,792	9,828
1948	21,595	21,595
1949	20,204	20,204
1950	16,370	16,370
1951	27,451	27,451
1952	20,187	20,187
1953	22,497	22,497
1954	34,579	34,579
1955	31,906	31,906
1956	25,382	25,382
1957	29,290	29,290
1958	44,308	18,894
1959	73,013	78,119
1960	59,542	64,850
1961	52,820	52,820
1962	61,388	67,221
1963	45,345	44,412
1964	62,726	56,626
1965	65,133	74,833
1966	63,426	60,601
1967	64,267	58,070
1968	63,501	71,749
1969	42,601	44,338
Total	986,847	981,310
Uncollected		5,537

¹ Decrease.

LOWER KLAMATH LAKE, BONANZA SPRINGS,
AND SUPPLEMENTAL SERVICES
MISCELLANEOUS CONTRACTS

Determination of repayment obligations as of June 30, 1969:

Construction costs	\$2,090,955
Corollary costs	8,235
Other charges funded	1,137
Subtotal	2,100,327
Less:	
Excess of income over expense	509,521
Anticipated excess of income over expense ...	1,529,540
Subtotal	2,039,061
Plus:	
Surplus not applied	115,032
Total repayment contracts	176,298

CONTRACTS

- 1917, November 30: Contract with Klamath Drainage District for repayment of cost of investigations of practicability of reclaiming marsh lands and change in source of water supply for Van Brimmer Drainage District. Obligation, \$93,787, payable in 20 years.
- 1919, March 30: Contract Ilr-404 with J. W. Siemens for drainage. Obligation, \$17,033, payable in 20 years.
- 1919, July 10: Contract Ilr-400 with Horsefly Irrigation District for water supply from Bonanza Springs for 4,400 acres at \$6.50 per acre, payable in 20 years. Contract

amended on October 12, 1922, by increasing acreage to 5,900.

- 1920, July 31: Contract Ilr-405 with Upper Van Brimmer Drainage District for drainage. Obligation, \$17,458, payable in 20 years.
- 1921, August 10: Contract with Geary Investment Co. for water supply from Upper Klamath Lake for 4,193.74 acres at 25 cents per acre. Obligation \$1,048.44, payable upon execution of contract.
- 1921, August 24: Contract Ilr-402 with Klamath Drainage District for water supply from Upper Klamath Lake. Obligation \$50,000, payable in 10 equal annual installments.
- 1923, July 10: Contract with California-Oregon Power Co. for purchase of power site. Obligation \$120,620, payable in 10 years.
- 1929, July 6: Contract with Klamath Drainage District, extending time for repayment under contracts of November 30, 1917, and August 24, 1921.
- 1943, April 28: Contract with Klamath Drainage District, adjusting obligation under 1917 contract to \$47,175 and rescheduling payments under 1921 contract. Contract approved by act of June 17, 1944 (ch. 261, 58 Stat. 279). Also 32 contracts with individuals for purchase of water rights from Klamath River and Upper Klamath Lake.

Summary of status of repayment contracts:

Total value of contracted repayment	\$176,298
Total matured charges	168,947
Total matured charges repaid	168,876
Total matured charges unpaid	71

CONSTRUCTION REPAYMENT HISTORY—MISCELLANEOUS CONTRACTS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918-----	\$93,787	\$23,500		\$23,500	\$23,500		\$23,500	\$23,500
1919-----	93,787							23,500
1920-----	122,387	286		286	286		286	23,786
1921-----	156,878	572		572	572		572	24,358
1922-----	207,926	1,675		1,675	1,334		1,334	25,692
1923-----	217,676	1,548		1,548	1,207		1,207	26,899
1924-----	338,296	11,470		11,470	10,955		10,955	37,854
1925-----	338,724	7,281		7,281	7,281	\$1,197	8,478	46,332
1926-----	338,724	7,480		7,480	6,799		6,799	53,131
1927-----	338,724	17,752		17,752	16,721		16,721	69,852
1928-----	338,724	32,181		32,181	31,840	681	32,521	102,373
1929-----	338,724	32,627		32,627	18,988	517	19,505	121,878
1930-----	338,724	21,214		21,214	19,011	13,039	32,050	153,928
1931-----	338,724	29,353		29,353	25,827	3,256	29,083	183,011
1932-----	339,001	2,070	¹ \$6,349	¹ 4,279	1,545	1,444	2,989	² 186,000
1933-----	339,521	30,843	¹ 2,619	28,224	30,052	1,167	31,219	² 217,219
1934-----	341,660	1,582		1,582	492	1,719	2,211	² 219,430
1935-----	342,542	8,936	¹ 1,047	7,889	1,607	465	2,072	² 221,502
1936-----	344,240	4,004	¹ 4,463	¹ 459	3,415	1,438	4,853	² 226,355
1937-----	344,240	10,528		10,528	3,492	¹ 273	3,219	229,574
1938-----	344,984	6,277		6,277	4,356	992	5,348	234,922
1939-----	354,223	10,540		10,540	4,657	131	4,788	239,710
1940-----	356,730	10,839		10,839	4,903	64	4,967	244,677
1941-----	357,468	10,752		10,752	4,238	195	4,433	249,110
1942-----	359,220	9,965		9,965	6,122	696	6,818	255,928
1943-----	359,345	10,099		10,099	6,114	38	6,152	262,080
1944-----	362,396	10,287		10,287	7,005	11	7,016	269,096
1945-----	314,768	6,104	¹ 30,087	¹ 23,983	5,964		5,964	³ 275,060
1946-----	315,145	6,136		6,136	6,136	140	6,276	281,336
1947-----	318,058	4,275		4,275	2,840		2,840	284,176
1948-----	319,909	15,948		15,948	15,620	1,435	17,055	301,231
1949-----	322,583	2,311		2,311	2,165	328	2,493	303,724
1950-----	323,543	1,575		1,575	1,429	146	1,575	305,299
1951-----	324,503	1,663		1,663	1,536	146	1,682	306,981
1952-----	327,989	3,615		3,615	3,433	127	3,560	310,541
1953-----	⁴ 286,423	-35,577		-35,577	-35,577	182	-35,395	275,146
1954-----	286,423	1,300		1,300	1,300		1,300	276,446
1955-----	289,034	1,300		1,300	1,300		1,300	277,746
1956-----	289,034	1,300		1,300	1,300		1,300	279,046
1957-----	⁴ 279,405	12,403	-62,982	-50,579	10,132	-62,982	-52,850	226,196
1958-----	⁴ 169,164	1,112	-69,005	-67,893	1,057	-66,734	-65,677	160,519
1959-----	169,164	1,321		1,321	1,266	55	1,321	161,840
1960-----	169,164	1,010		1,010	955	55	1,010	162,850
1961-----	169,164	892		892	593	299	892	163,742
1962-----	169,164	777		777	671	55	726	164,468
1963-----	169,164	766		766	609	106	715	165,183
1964-----	169,164	713		713	870		870	166,053
1965-----	169,164	684		684	684		684	166,737
1966-----	169,164	666		666	666		666	167,403
1967-----	176,298	475		475	465		465	167,868
1968-----	176,298	657		657	596		596	168,464
1969-----	176,298	412		412	412		412	168,876
Total-----		345,499	-176,552	168,947	268,741	-99,865	168,876	
Collected-----				168,876				
Uncollected-----				71				

¹ Decrease. Decreases during period 1932 to 1936, inclusive, cover deferments under moratorium acts. Decrease in 1945 represents adjustment of Klamath drainage contract under contract of Apr. 28, 1943.

² Moratorium period.

³ 1945. Adjustment, Klamath Drainage District.

⁴ Adjustment between divisions.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—MISCELLANEOUS CONTRACTS

Fiscal year	Accruals	Collections
1918		
1919		
1920	\$ 352	\$ 352
1921	352	352
1922	352	352
1923	352	352
1924	472	472
1925	472	472
1926	472	472
1927	472	472
1928	485	485
1929	737	737
1930	551	551
1931	504	504
1932	505	505
1933	512	512
1934	525	525
1935	528	522
1936	561	555
1937	536	538
1938	544	548
1939	1,060	1,066
1940	1,082	1,076
1941	1,102	1,101
1942	1,140	1,134
1943	1,127	1,137
1944	1,177	1,179
1945	1,166	1,164
1946	1,180	1,165
1947	145	163
1948	153	153
1949	195	195
1950	183	183
1951	208	208
1952	249	249
1953	220	220
1954	220	220
1955	264	264
1956	526	526
1957	526	526
1958	852	613
1959	895	1,020
1960	967	881
1961	1,542	1,418
1962	1,542	1,419
1963	780	907
1964	1,820	1,859
1965	2,015	2,036
1966	2,081	1,985
1967	2,544	2,355
1968	2,439	2,120
1969	2,860	2,703
Total	41,544	40,523
Uncollected		1,021

KLAMATH PROJECT—SUMMARY STATEMENT OF PROJECT COST AND REPAYMENT
As of JUNE 30, 1969

	Project total	DIVISION—100 PER CENT IRRIGATION								Costs of US Air Force
		Main	Tule Lake	Lower Klamath Lake	Pumping	Bonanza Springs	Langell	Supple- mental services	Unallo- cated	
<i>Amount to be allocated</i>										
Irrigation plant	\$21,627,312	\$2,624,523	\$14,379,297	\$2,016,973	\$963,021	\$38,350	\$1,030,623	\$35,632	\$368,068	\$170,825
Corollary costs	450,170	-	441,935	8,235	-	-	-	-	-	-
Total cost	22,077,482	2,624,523	14,821,232	2,025,208	963,021	38,350	1,030,623	35,632	368,068	170,825
Other charges	81,299	80,610	326	774	1,279	363	947	-	-	-
Total	22,161,781	2,705,133	14,821,558	2,025,982	964,300	38,713	1,031,570	35,632	368,068	170,825
<i>Repayments and other credits</i>										
Repayment realized:										
Repayments realized from other sources	53,463	52,845	618	-	-	-	-	-	-	-
Repayment contracts matured	5,113,066	2,285,766	1,452,457	98,834	432,686	38,713	773,200	31,410	-	-
Contributions	344,415	344,177	238	-	-	-	-	-	-	-
Excess of income over expense	11,374,568	(33,616)	10,867,725	397,608	6,190	-	28,255	111,913	(3,507)	-
Reserve for depreciation	35,442	-	-	-	-	-	-	-	35,442	-
Total repayment realized	16,920,954	2,649,172	12,321,038	496,442	438,876	38,713	801,455	143,323	31,935	-
Anticipated future repayment:										
Repayment contracts unma- tured	2,784,546	8,231	2,500,520	-	72,122	-	196,332	7,341	-	-
Future repayment contracts	55,000	-	-	-	-	-	55,000	-	-	-
Excess of income over expense	1,835,673	-	-	1,529,540	-	-	-	-	306,133	-
Total anticipated future repay- ment	4,675,219	8,231	2,500,520	1,529,540	72,122	-	251,332	7,341	306,133	-
Total repayment	21,596,173	2,657,403	14,821,558	2,025,982	510,998	38,713	1,052,787	150,664	338,068	-
Other credits:										
Repayment reductions authorized U. S. Air Force headquarters facilities	63,473	63,473	-	-	-	-	-	-	-	-
Bureau of Land Management water right studies	170,825	-	-	-	-	-	-	-	-	170,825
Loan Program— P. L. 84-984	30,000	-	-	-	-	-	-	-	30,000	-
Total repay- ments and other credits	460,960	-	-	-	460,960	-	-	-	-	-
Total repayment	22,321,431	2,720,876	14,821,558	2,025,982	971,958	38,713	1,052,787	150,664	368,068	170,825
Excess of repayment over cost	159,650	15,743	-	-	7,658	-	21,217	115,032	-	-

REPAYMENT OF RECLAMATION PROJECTS

KLAMATH PROJECT—ESTIMATED PAYOUT SCHEDULE—
CONTRACTED RETURNS

Fiscal year	Amount
Through 1969-----	\$5,113,066
1970-----	140,028
1971-----	132,397
1972-----	127,799
1973-----	119,358
1974-----	117,729
1975-----	117,476
1976-----	117,043
1977-----	114,968
1978-----	114,673
1979-----	115,543
1980-----	101,240
1981-----	100,576
1982-----	100,569
1983-----	100,556
1984-----	100,599
1985-----	91,597
1986-----	91,597
1987-----	91,597
1988-----	91,597
1989-----	91,597
1990-----	91,597
1991-----	91,597
1992-----	91,597
1993-----	91,597
1994-----	91,597
1995-----	91,597
1996-----	70,718
1997-----	40,707
Total-----	7,952,612

LEWISTON ORCHARDS PROJECT

IDAHO

Reconstruction of the Lewiston Orchards project was found feasible by the Acting Secretary on May 31, 1946, pursuant to the Reclamation Project Act of 1939 (53 Stat. 1187). However, before the Secretary's report was submitted to Congress, the Congress specifically authorized construction of the project by act of July 31, 1946 (50 Stat. 717). The authorizing act provided for the development of an adequate irrigation water supply for about 3,838 acres in Nez Perce County, Idaho, and a dependable domestic water system for about 4,000 people.

During the 1969 crop year, the irrigable area for service and the irrigated area consisted of 3,670 acres and 1,880 acres, respectively. The gross value of crops produced on these lands for that year was \$330,642, for an average value per irrigated acre of \$175.87. The population served by the domestic water system increased from 3,500 in 1947 to 11,333 in 1962.

In 1906, a private company undertook diversion of water into a small reservoir and delivery of this water through wood-stave pressure pipelines. The water supply was augmented in 1915, 1922, 1934, and 1939 by providing for new diversions and by increasing the storage capacity. As a result of deterioration of the system, the Lewiston Orchards Irrigation District was assisted by the Work Projects Administration during 1939 through 1941 in replacing wooden flumes with concrete bench flumes. This work was not completed.

Under the approved plan the Bureau reconstructed and enlarged the water system previously developed by local interests. The irrigation and domestic water systems were separated and a treatment plant was added to the latter system. Project facilities include diversion dams, feeder canals, storage reservoir, domestic water treatment plant (capacity 1,500,000 gallons per day), 300,000 feet of pipe for the domestic water system, and 300,000 feet of pipe for distribution of irrigation water.

Cost and repayment allocations:

Total project cost	\$2,484,397
Allocation of reimbursable costs:	
Irrigation	1,438,681
Domestic water supply	1,045,716
Repayment of reimbursable costs:	
Irrigation water users	1,438,521
Domestic water users	1,045,716
Contributions (State of Idaho)	160
Total	2,484,397
Repayment contract matured	\$653,156
Contributions	160
Repayment contract unmatured	1,831,081
Total repayments	2,484,397

At all times the system has been under operation of the District with operation and maintenance costs financed by assessment of water users. Water was available during the time the system was reconstructed.

Repayment contracts.—The Lewiston Orchards Irrigation District concluded a contract with the Government on September 10, 1947, which provided for a maximum construction obligation of \$1,990,000, to be repaid in 50 successive annual installments for both the irrigation system and the domestic water system. This contract was amended on February 2, 1949, to increase the maximum obligation to \$2,500,000 and to allow a development period of 5 years, during which time no irrigation construction assessments would be made.

Payout schedule.—Repayment began on the domestic water system in 1954 and will be completed on all project works in 2008.

PUBLIC NOTICES AND CONTRACTS

1947, September 10: Contract with District for maximum construction obligation of \$1,990,000, payable in 50 successive annual installments. Irrigable acreage on date of contract was 3,490 acres.

REPAYMENT OF RECLAMATION PROJECTS

1949, February 2: Contract I1r-1502 changed maximum construction obligation to \$2,500,000 and extended the development period for irrigation from 3 to 5 years.

1952, May 2: Department notice allocating tentative project costs. Development period for irrigation begins January 1, 1953, and ends December 31, 1957. First payment due on irrigation on December 31, 1958. First installment on domestic water due December 31, 1953. Annual installments are due December 31; however, payments may be made one-half on June 30, and one-half on December 31 of the year in which the total annual installment accrues.

1961, February 10: Final cost notice issued by regional office. Actual cost of \$2,484,397, less \$160 paid as contribution by State of Idaho, to be repaid in 50 years as scheduled by the notice.

Summary of status of repayment contracts:

Total value of contracted repayment	\$2,484,237
Total matured charges	653,156
Total matured charges repaid	653,156
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1954-----	\$2,500,000	\$21,232	-----	\$21,232	\$21,232	-----	\$21,232	\$21,232
1955-----	2,500,000	21,232	-----	21,232	21,232	-----	21,232	42,464
1956-----	2,500,000	21,232	-----	21,232	21,232	-----	21,232	63,696
1957-----	2,500,000	21,233	-----	21,233	21,233	-----	21,233	84,929
1958-----	2,500,000	21,232	-----	21,232	21,232	-----	21,232	106,161
1959-----	2,500,000	50,000	-----	50,000	50,000	-----	50,000	156,161
1960-----	2,500,000	50,000	-----	50,000	50,000	-----	50,000	206,161
1961-----	2,484,237	50,000	-----	50,000	50,000	-----	50,000	256,161
1962-----	2,484,237	49,624	-----	49,624	31,189	-----	31,189	287,350
1963-----	2,484,237	49,625	-----	49,625	49,246	¹ \$18,814	68,060	355,410
1964-----	2,484,237	49,624	-----	49,624	49,624	-----	49,624	405,034
1965-----	2,484,237	49,625	-----	49,625	49,625	-----	49,625	454,659
1966-----	2,484,237	49,624	-----	49,624	49,624	-----	49,624	504,283
1967-----	2,484,237	49,624	-----	49,624	49,624	-----	49,624	553,907
1968-----	2,484,237	49,625	-----	49,625	49,625	-----	49,625	603,532
1969-----	2,484,237	49,624	-----	49,624	49,624	-----	49,624	653,156
Total--	-----	653,156	-----	653,156	634,342	18,814	653,156	-----

¹ Prior year collections.

LITTLE WOOD RIVER PROJECT

IDAHO

The Little Wood River project was authorized by the act of August 6, 1956 (70 Stat. 1059). The project serves as a source of supplemental water for approximately 9,500 acres of irrigable land in Blaine County, Idaho, extending on both sides of Little Wood River upstream and downstream from Carey, Idaho.

The irrigable acreage for service and the irrigated area in the project during 1969 were 9,549 acres and 6,747 acres, respectively. The gross crop value during the 1969 crop year was \$446,580 and the average value per irrigated acre was \$66.19. Due to the restricted growing season and shortage of late season water, crop production is limited largely to alfalfa, grains, and pasture.

Project facilities consist of Little Wood River Dam and Reservoir, on which original construction was started in 1936 by the Work Projects Administration. Construction activities by this agency were terminated in 1939 before completion and the dam was finished by contract in 1941. In 1954, the Bureau of Reclamation began investigation of a plan for enlargement of the dam and reservoir and this later became the basis for authorization. This authorization made provision for raising the dam 45 feet above its original height and increasing the storage capacity of the reservoir from 12,100 to 30,000 acre-feet.

The reservoir is operated by the District on a forecast basis to provide flood control benefits and storage is also provided for fish and wildlife conservation.

Repayment contracts.—The repayment contract with the District, dated June 18, 1958, provides for repayment to the United States of the actual cost of the work exclusive of the nonreimbursable costs. The District will be allowed a credit of \$96,000 towards annual costs for the first 40 years of project operation assignable to the nonreimbursable functions. The District's obligation is to be repaid in 40 annual installments after the end of the development period.

An 8-year development period as provided by the contract was established for the period January 1, 1961, through December 31, 1968. The District is scheduled to pay to the United States development period charges totaling \$193,980. An amendatory contract dated February 20, 1967, increased the development period from 8 to 10 years; accordingly the development period will end December 31, 1970. These charges will be deducted from the District's total repayment obligation.

CONTRACTS AND PUBLIC NOTICE

- 1958, June 18: Contract 14-06-100-1549 with Little Wood River Irrigation District to repay actual costs less non-reimbursable and exclusive of annual costs for the first 40 years of project operation assignable to these functions. The first installment to be due the first calendar year following the close of the 8-year development period.
- 1962, August 31: Actual construction cost notice. Irrigation allocation, \$1,474,109. District obligation, \$1,378,109, after allowing \$96,000 credit for operating nonreimbursable functions. Deducting \$193,980 of development period charges leaves \$1,184,129, to be repaid in 40-year repayment period beginning December 31, 1969. Thirty-nine annual installments of \$29,604 each and one annual installment of \$29,573. Annual installments due December 31; at option of District, payable one-half on December 31 and one-half on June 30 following year.
- 1967, February 20: Amendatory contract 14-06-100-5819 with the District increases the development period from 8 to 10 years and also provides for the charges during the 5 remaining years of the development period to be adjusted by the variable repayment formula in article 13 of the 1958 contract.

Summary of status of repayment contract:

Total value of contracted repayment	\$1,378,109
Total matured charges—development period	134,945
Total matured charges repaid	134,945
Total matured charges unpaid	0

Statement of cost and repayment:

REPAYMENT OF RECLAMATION PROJECTS

<i>Cost</i>		<i>Repayment</i>	
Multipurpose plant	\$2,023,558	Repayment contracts matured	134,945
Recreation facilities	32,021	Repayment contracts unmatured	1,243,164
Property transfers	971		
Total project cost	<u>2,056,550</u>	Total repayments	1,378,109
Allocations of costs:		Other credits:	
Irrigation, reimbursable	1,474,109	Nonreimbursable plant deductions	582,441
Flood control	323,673	Credit for operation of nonreimbursable function ..	96,000
Fish and wildlife	226,747		
Recreation	32,021	Total repayments and other credits	<u>2,056,550</u>

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1962 ¹ -----	\$1,577,600	\$15,900	-----	\$15,900	\$15,900	-----	\$15,900	\$15,900
1963 ¹ -----	² 1,378,109	18,285	-----	18,285	18,285	-----	18,285	34,185
1964 ¹ -----	1,378,109	20,670	-----	20,670	20,670	-----	20,670	54,855
1965 ¹ -----	1,378,109	9,443	-----	9,443	9,443	-----	9,443	64,298
1966 ¹ -----	1,378,109	14,185	-----	14,185	14,185	-----	14,185	78,483
1967 ¹ -----	1,378,109	18,460	-----	18,460	18,460	-----	18,460	96,943
1968 ¹ -----	1,378,109	18,295	-----	18,295	18,295	-----	18,295	115,238
1969 ¹ -----	1,378,109	19,707	-----	19,707	19,707	-----	19,707	134,945
Total --	-----	134,945	-----	134,945	134,945	-----	134,945	-----

¹ Development period.² Water users obligation reduced on basis of actual construction cost notice, dated Aug. 31, 1962.

LOWER RIO GRANDE REHABILITATION PROJECT

TEXAS

The rehabilitation of the existing irrigation facilities of the La Feria Water Control and Improvement District, Cameron County No. 3, known as the La Feria division, was authorized by the act of September 22, 1959 (73 Stat. 641). Rehabilitation of the existing irrigation facilities of the Hidalgo and Cameron Counties Water Control Improvement District No. 9, known as the Mercedes division, was authorized by the act of April 7, 1958 (72 Stat. 82). The project is located in the Lower Rio Grande Valley of southernmost Texas, near Weslaco.

LA FERIA DIVISION

The plan of rehabilitation was designed to permit more efficient operation and maintenance of the District's works, to reduce seepage losses from the canals and laterals, to provide drainage relief throughout the District, and to modernize outdated pumping plants. The irrigable area is 33,852 acres. During crop year 1969, 30,208 acres were irrigated with a gross crop value of \$5,541,449 and an average of \$183.44 per acre.

The total cost is \$5,683,299, including \$98,548 of property transfers. The entire amount is allocated to irrigation, of which \$5,750,000 will be repaid by the

District. Of the total amount, \$24,453 was contributed by the District for investigations and is therefore excluded from the repayment contract.

The District will continue to operate and maintain the division upon completion of construction.

Payout schedule.—Under terms of the repayment contract, the maximum authorized value of the water users obligation is \$5,750,000, repayable in 35 successive annual principal installments, with the first installment due on August 1 of the year following that in which the construction cost notice was issued. Notice was issued on August 5, 1966; first construction payment was made in fiscal year 1968.

CONTRACT

1959, December 7: Contract 14-06-500-413 with the La Feria Water Control and Improvement District, Cameron County No. 3, for construction and rehabilitation of project works and repayment of \$5,750,000 in 35 annual installments, due on August 1 of each year. The irrigable area on date of contract was 27,541 acres.

Summary of status of repayment contract:

Total value of contracted repayment	\$5,750,000
Total matured charges	138,000
Total matured charges repaid	138,000
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—LA FERIA DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1968-----	\$5,750,000	\$138,000	-----	\$138,000	\$138,000	-----	\$138,000	\$138,000
1969-----	5,750,000	¹	-----	-----	138,000	¹ —\$138,000	-----	138,000
Total--	-----	138,000	-----	138,000	276,000	¹ —138,000	138,000	-----

¹ Deferred due to hurricane Beulah.

MERCEDES DIVISION

The plan of rehabilitation was designed to permit more efficient operation and maintenance of the District's works, to reduce seepage losses from the canals and laterals, to provide drainage relief throughout the District, and to modernize outdated pumping plants. The irrigable area is 68,000 acres.

The total estimated cost is \$11,322,000, including \$268,510 of property transfers. The entire amount is allocated to irrigation. The District has contracted to repay \$10,800,000. An amendatory contract for \$500,000 is pending. Of the total amount, \$22,000 was contributed by the District for investigations and is therefore excluded from the repayment contract.

The District will continue to operate and maintain the division upon completion of construction.

CONTRACT

1958, July 18: Contract 14-06-500-388 with the Hidalgo and

Cameron Counties Water Control and Improvement District No. 9 for the construction and rehabilitation of project works and repayment of \$10,800,000 in 35 annual installments, due on August 1 of each year. The irrigable acreage on date of contract was 68,000.

Summary of status of repayment contract:

Total value of contracted repayment	\$10,800,000
Total matured charges	0

Payout schedule.—Under terms of the repayment contract, the maximum authorized value of the water users obligation is \$10,800,000. The obligation is to be repaid in 35 successive annual principal installments, with the first installment due on August 1 of the year following that in which the construction cost notice was issued. Notice was issued March 28, 1968; first construction payment is due in fiscal year 1970.

LOWER YELLOWSTONE PROJECT

MONTANA-NORTH DAKOTA

The Lower Yellowstone project was authorized by the Secretary on May 10, 1904, pursuant to the Reclamation Act of 1902. Construction began on July 22, 1905, and the first water was available for irrigation during the season of 1909.

The project was constructed to supply irrigation water to approximately 58,000 acres of land. The total cost of \$3,697,842 is allocated to irrigation. The current irrigable acreage is 52,221 acres. 28,723 acres in Montana and 15,611 acres in North Dakota were irrigated during the 1969 season with a total crop value of \$6,410,206. The average crop value for lands in Montana was \$142.27 per acre and in North Dakota \$148.86 per acre. Crop value from 1909 to 1969 amounts to \$130 million.

The project lies along the Yellowstone River in eastcentral Montana and western North Dakota, with approximately one-third of the irrigable lands in North Dakota. The major works include the Lower Yellowstone Diversion Dam, Thomas Point Pumping Plant, the Main Canal, 225 miles of laterals, and 118 miles of drains. Water is diverted from the Yellowstone River into the 72-mile Main Canal by the Lower Yellowstone Diversion Dam near Intake, Mont. It is carried by gravity in the canal to the greater portion of the project lands. About 2,300 acres of benchland are irrigated by water pumped from the canal by Thomas Point Pumping Plant.

The project is operated by the Board of Control of the Lower Yellowstone project, and includes Lower Yellowstone District No. 1 in the State of Montana, and Lower Yellowstone District No. 2 in the State of North Dakota. The United States transferred operation of the irrigation system to the two districts on January 1, 1932.

Repayment contracts.—Repayment contracts with Lower Yellowstone Irrigation Districts No. 1 and No. 2, dated September 23, and November 2, 1926, respectively, provide that the districts shall repay to the

United States a share of the construction cost based on the irrigable acreage within the district, with each acre of the irrigable land chargeable for its share of construction. Provision was made in this contract for reduction in acres and of charges, pursuant to the act of May 25, 1926 (44 Stat. 636), in which case neither such acres nor the irrigation district would be chargeable therefor.

Pursuant to act of June 4, 1948 (62 Stat. 336), amendatory agreements were executed on May 6, 1952, and June 7, 1952, under which District No. 1 repayment contract was decreased by \$3,533 and District No. 2 was decreased by \$6,002 due to increase in irrigable land. By 1961, all class 5 land had been reclassified as pay class land or as permanently unproductive, with a further reduction in the district's obligation of \$259,217.

On February 26, 1964, a contract was executed with both districts for the rehabilitation and betterment of a portion of the lateral system endangered by the incursion of the Yellowstone River channel into the project area. Work under this contract was completed in 1965 at a cost of \$99,995, to be repaid by annual payments of \$10,000, beginning with calendar year 1965.

PUBLIC NOTICES AND CONTRACTS

- 1908, December 21: Public notice. Construction charge \$42.50 per acre, payable in 10 equal annual installments.
- 1912, March 1: Public notice. Construction charge raised to \$45 per acre, payable in 10 graduated annual installments.
- 1920, December 10, and 1921, March 9: Contracts with Lower Yellowstone Irrigation District No. 1 and Lower Yellowstone Irrigation District No. 2, respectively, under which districts agree to pay construction cost of project in 20 graduated annual installments. Operation and maintenance deficit and certain other costs designated as supplemental construction to be paid in additional installments after 20-year repayment period.

- 1923, May 24: Contract with town of Savage, Mont., for annual water service at \$2.45 per acre-foot, of which \$1.16 is paid to the Lower Yellowstone Irrigation District No. 1.
- 1926, September 23, and November 2, amended May 6, and June 7, 1952: Contracts with Lower Yellowstone Irrigation District No. 1 and Lower Yellowstone Irrigation District No. 2, respectively. Contracts provide for additional construction work and for funding of delinquencies. Repayment of construction charges to be made on crop-production basis, annual installments to be 5 percent of average gross annual income for 10 preceding years. Payout period indefinite.
- 1945, September 17: Contract with city of Sidney, Mont., for annual water service—annual water service charge \$200. Also provides for payment of \$700 at rate of \$100 per year for past due payments under previously canceled contract.
- 1945, October 8: Contract with town of Fairview, Mont., for water service—annual water service charge \$200. Also provides for payment of \$1,997 at a rate of \$100 per year for past due payments under previously canceled contract.
- 1964, February 26: Contract with Lower Yellowstone Irrigation Districts No. 1 and No. 2 for rehabilitation and betterment of lateral system at estimated cost of \$100,000, to be repaid in 10 years with annual payments of \$10,000 beginning in 1965.

Summary of status of repayment contracts:

Total value of contracted repayment	\$3,928,677
Total matured charges	3,668,994
Total matured charges repaid	3,668,994
Total matured charges unpaid	0

STATEMENT OF COST AND REPAYMENT

	Total	Irrigation No. 1	District No. 2
Plant, property, and equipment:			
Irrigation plant	\$3,585,927	\$2,335,873	\$1,250,054
Corollary construction costs:			
Deferred maintenance (R&B)	99,995	66,126	33,869
Property transfers	3,019	1,967	1,052
Investigations	5,603	3,650	1,953
Adjustment surveys (NR)	3,298	2,148	1,150
Subtotal	111,915	73,891	38,024
Total cost	3,697,842	2,409,764	1,288,078
Other charges:			
O&M deficit	875,365	580,171	295,194
Interest and penalties	47,529	31,919	15,610
Total	4,620,736	3,021,854	1,598,882
Repayment and other credits:			
Repayment realized:			
Repayment contracts matured	3,668,994	2,454,759	1,214,235
Miscellaneous revenues	45,031	29,333	15,698
Subtotal	3,714,025	2,484,092	1,229,933
Repayment contracts unmatured	259,683	139,482	120,201
Total repayment	3,973,708	2,623,574	1,350,134
Other credits:			
Repayment obligation transferred			
to other projects	44,700	29,118	15,582
Nonreimbursable expenses	3,298	2,148	1,150
Chargeoff, acts of May 25, 1926, and			
June 4, 1948	606,306	371,592	234,714
Subtotal	654,304	402,858	251,446
Total repayment and other credits ..	4,628,012	3,026,432	1,601,580
Surplus	7,276	4,578	2,698

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1909		\$48,008		\$48,008	\$238		\$ 238	\$ 238
1910		2,962		2,962	0	\$6,532	6,532	6,770
1911		55,054	\$1,668	56,722	1,619	2,551	4,170	10,940
1912		2,087	¹ 9,104	¹ 7,017	225	¹ 361	¹ 136	10,804
1913		2,053	¹ 95,374	¹ 93,321	0	¹ 6,921	¹ 6,921	3,883
1914		44,779	¹ 671	44,108	3,809	¹ 255	3,554	7,437
1915		1,944	¹ 664	1,280	1,189	117	1,306	8,743
1916		7,599	7,423	15,022	693	543	1,236	9,979
1917	\$1,225,497			¹ 1,131			5	9,984
1918	1,243,429			4,469			61	10,045
1919	1,243,429	² -57,703		3,045	82		0	10,045
1920	1,243,429			11			16	10,061
1921	1,243,429			¹ 64,097			0	10,061
1922	3,614,104			31,074	31,074		31,074	41,135
1923	3,614,104			0			0	41,135
1924	3,614,302	28,090	197	28,287	6,544	197	6,741	47,876
1925	3,614,302	32,636		32,636		2,987	2,987	50,863
1926	3,614,166	32,649		32,649		19,286	19,286	70,149
1927	4,568,863	10,850	³ 62,966	³ 52,116	10,821	1,592	12,413	82,562
1928	4,568,863	25,354		25,354	25,354	29	25,383	107,945
1929	⁴ 4,164,249	44,539		44,539			44,233	152,178
1930	4,134,865	66,216		66,216	61,583	316	61,899	214,077
1931	4,125,999	65,312		65,312	61,509	4,623	66,132	280,209
1932	4,138,489	⁵ 4,341		4,341	4,341	3,803	8,144	288,353
1933	4,077,816	⁶ 620	¹ 110	510	620	¹ 110	510	288,863
1934	4,087,842	⁶ 1,634		1,634	1,634		1,634	290,497
1935	4,096,817	⁶ 1,661		1,661	1,661		1,661	292,158
1936	4,094,992	⁶ 1,603		1,603	1,603		1,603	293,761
1937	4,094,992	⁶ 25,760		25,760	24,711		24,711	318,472
1938	4,094,992	73,230		73,230	45,588	1,049	46,637	365,109
1939	4,092,444	72,482		72,482	37,216	27,642	64,858	429,967
1940	4,092,444	72,242		72,242	31,305	35,266	66,571	496,538
1941	4,092,444	72,154		72,154	40,473	40,937	81,410	577,948
1942	4,092,444	74,834		74,834	46,734	31,681	78,415	656,363
1943	4,092,444	78,155		78,155	78,155	28,100	106,255	762,618
1944	4,097,429	84,253		84,253			84,253	846,871
1945	4,097,429	91,358		91,358	91,358		91,358	938,229
1946	4,097,429	99,340		99,340	99,340		99,340	1,037,569
1947	4,062,878	111,474		111,474	111,474		111,474	1,149,043
1948	4,067,484	118,419		118,419	118,419		118,419	1,267,462
1949	4,087,338	125,108		125,108	125,108		125,108	1,392,570
1950	4,087,338	153,217		153,217	131,637		131,637	1,524,207
1951	4,087,338	115,799		115,799	115,799	21,580	137,379	1,661,586
1952	4,087,338	142,360		142,360	94,580		94,580	1,756,166
1953	4,084,366	139,322		139,322	139,322	47,780	187,102	1,943,268
1954	4,084,366	148,223		148,223	148,223		148,223	2,091,491
1955	4,084,366	147,623		147,623	147,623		147,623	2,239,114
1956	4,084,366	141,718		141,718	96,681		96,681	2,335,795
1957	4,087,894	138,788	251	139,039	138,276		138,276	2,474,071
1958	4,087,894	131,816		131,816	131,816	45,800	177,616	2,651,687
1959	4,087,894	114,288		114,288	114,288		114,288	2,765,975
1960	4,087,894	103,592		103,592	103,592		103,592	2,869,567
1961	⁶ 3,817,465	97,491		97,491	97,491		97,491	2,967,058
1962	⁶ 3,828,189	103,272		103,272	103,272		103,272	3,070,330
1963	3,828,189	102,422		102,422	102,422		102,422	3,172,752
1964	3,928,189	97,587		97,587	97,587		97,587	3,270,339
1965	3,928,189	92,795		92,795	92,795		92,795	3,363,134
1966	3,928,189	87,621		87,621	87,621		87,621	3,450,755
1967	3,928,189	83,554		83,554	83,554		83,554	3,534,309
1968	3,928,189	68,351		68,351	68,351		68,351	3,602,660
1969	3,928,677	66,334		66,334	66,334		66,334	3,668,994
Total		3,828,344	-159,350	668,994	3,354,230	314,764	3,668,994	

¹ Decrease. Decreases due to reduction of accruals under 1912 public notice.² Water-rental period.³ Decrease. Delinquent charges funded, 1926 contracts.⁴ Reduction due to adjustment of obligation for drainage work from estimated to actual cost.⁵ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$6,513; 1931, \$71,227; 1932, \$70,455; 1933, \$68,928; 1934, \$69,054; 1935, \$72,175; 1936, \$35,069.⁶ Chargeoffs authorized by Congress under act of May 25, 1926. Correction credited in 1962.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1909-----	\$11,296	\$56
1910-----	697	6,000
1911-----	13,348	6,162
1912-----	3,375	1,945
1913-----	96,219	16,947
1914-----	37,726	4,206
1915-----	-1,003	316
1916-----	-23,204	103
1917-----	-967	9
1918-----	644	91
1919-----	337	0
1920-----	0	0
1921-----	32,931	0
1922-----	-9,135	9,065
1923-----	37,153	22,778
1924-----	44,408	-16,737
1925-----	47,442	1,798
1926-----	52,427	42,673
1927-----	-185,084	50,243
1928-----	37,076	41,216
1929-----	46,208	52,104
1930-----	47,949	46,529
1931-----	36,487	40,826
1932-----	13,193	13,193
1933-----	430	430
1934-----	531	531
1935-----	0	0
1936-----	-1,921	-1,921
Total-----	338,563	338,563

PAYOUT SCHEDULE

Fiscal year	Estimated construction charge accruals		R&B contract	Balance to be repaid
	District No. 1	District No. 2		
Cumulative through 1969	\$2,425,000	\$1,198,994	\$45,000	\$259,683
1970	25,984	22,476	10,000	201,223
1971	15,172	16,447	10,000	159,604
1972	10,756	11,449	10,000	127,399
1973	8,873	8,599	10,000	99,927
1974	7,853	6,216	10,000	75,858
1975	7,245	4,554	5,000	59,059
1976	6,433	3,762		48,864
1977	5,821	3,565		39,478
1978	4,648	3,005		31,825
1979	2,935	2,203		26,687
1980	2,466	2,178		22,043
1981	1,591	2,017		18,435
1982	970	1,981		15,484
1983	863	1,978		12,643
1984	423	1,922		10,298
1985	299	1,885		8,114
1986	120	1,689		6,305
1987	98	1,193		5,014
1988	98	1,105		3,811
1989	98	942		2,771
1990	98	843		1,830
1991	98	706		1,026
1992	98	376		552
1993	71	268		213
1994		119		94
1995		73		21
1996		21		
Totals	2,528,111	1,300,566	100,000	

LYMAN PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

WYOMING—UTAH

The Lyman project was authorized by the act of April 11, 1956 (70 Stat. 105), as one of the initial participating projects of the Colorado River Storage project. It is located in Bridger Valley in southwestern Wyoming in Uinta County near Fort Bridger, and in Summit County, Utah, and is to furnish a supplemental water supply to 42,674 acres of presently irrigated lands, plus having some wildlife and recreational benefits.

The total cost of the project is estimated at \$13,309,000. Of this total cost, \$2,013,058 is allocated to fish and wildlife and is nonreimbursable. In addition, \$486,942 allocated to fish and wildlife under section 8 of the authorizing act is nonreimbursable.

The major features of the project consist of Meeks Cabin Dam and Reservoir with 33,000 acre-feet capacity on Blacks Fork, and China Meadows Dam and Reservoir with 13,000 acre-feet capacity to be built on East Fork of Smith's Fork. Project construction was started on Meeks Cabin Dam in 1966 and is scheduled for completion in 1970. China Meadows Dam is scheduled to start construction in 1971.

A 3-year development period is to commence following completion of the construction of the two dams.

Repayment contract.—The Bridger Valley Water Conservancy District has contracted to repay \$2,212,000 as the irrigators' obligation in 50 equal annual installments.

CONTRACT

1964, April 8: Contract 14-06-400-3463 with the Bridger Valley Water Conservancy District for repayment of \$2,212,000 in 50 successive equal annual installments.

Cost and repayment:

Amount to be allocated:

Meeks Cabin Dam and Reservoir	\$9,208,000
China Meadows Dam and Reservoir	4,093,000
Other features	8,000
Total plant, property, and equipment	13,309,000
Costs of other agencies—section 8	486,942
Total	<u>13,795,942</u>

Repayment and other credits:

Repayment realized:

Costs financed by C.R.D.F.	60,101
Miscellaneous income	3,253
Subtotal repayment realized	<u>63,354</u>

Anticipated future repayment:

Repayment contracts unmatured	2,212,000
Power revenues, Colorado River Storage project	9,020,588
Subtotal anticipated future repayment	<u>11,232,588</u>

Total repayment	11,295,942
Nonreimbursable	2,500,000
Total repayment and other credits	<u>13,795,942</u>

MANCOS PROJECT

COLORADO

The Mancos project, located near Mancos in Montezuma County in southwestern Colorado, was approved by the President on October 24, 1940, under provisions of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. Authority to amend the Mancos project contract to provide increased reimbursability is contained in the act of June 25, 1947 (61 Stat. 176).

The project works consist of Jackson Gulch Dam and Reservoir offstream, an inlet canal from West Mancos River of 258 second-feet capacity, and an outlet canal of 207 second-feet capacity leading to West Mancos River. The project also provides a water supply for Mesa Verde National Park (the Mancos Rural Water Co.) and additional water for the town of Mancos, Colo.

The total project cost of \$3,917,971 is allocated to irrigation. Contracts have been executed with the Mancos Water Conservancy District for repayment of the reimbursable construction cost. A 3-year development period (from 1951 through 1953) was provided.

The present irrigable area for service is 8,650 acres, with 7,961 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$458,919 and \$57.65, respectively.

The Bureau of Reclamation operated and maintained the project with funds advanced by the water users until the latter assumed this responsibility on January 1, 1963.

Statement of project cost and repayment:

Jackson Gulch Dam	\$3,889,064
Property transfers	28,907
Total cost	3,917,971
Operation and maintenance charges	15,963
Total	3,933,934

Reimbursable costs:

Irrigation	906,779
Nonreimbursable costs:	
Irrigation, act of June 25, 1947 (61 Stat. 176) ..	3,027,155
Repayment of reimbursable costs:	
Mancos Water Conservancy District	900,000
Contributions and miscellaneous revenues	6,779
Total	906,779

Repayment contracts.—The original repayment contract with the Mancos Water Conservancy District was signed July 20, 1942. An amendatory contract dated December 22, 1947, increased the repayment obligation and extended the repayment period. First payment became due and payable on or before December 31, 1954.

CONTRACTS AND NOTICE

- 1942, July 20: Contract Ilr-1384 with Mancos Water Conservancy District for repayment of \$600,000 in 40 successive equal annual installments.
- 1947, December 22: Amendatory contract Ilr-1384 with the Mancos Water Conservancy District, which increases the repayment obligation of the District from \$600,000 to \$900,000 and increases the repayment period from 40 to 60 successive equal annual installments.
- 1950, July 27: Notice of development period to commence January 1, 1951, with operation and maintenance charges estimated at \$7,000.
- 1962, December 19: Transfer of operation and maintenance to Mancos Water Conservancy District on January 1, 1963.

Summary of status of repayment contract:

Total value of contracted repayment	\$900,000
Total matured charges	225,000
Total matured charges repaid	225,000
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1952	\$900,000							
1953	900,000							
1954	900,000							
1955	900,000	\$15,000		\$15,000	\$15,000		\$15,000	\$15,000
1956	900,000	15,000		15,000	15,000		15,000	30,000
1957	900,000	15,000		15,000	15,000		15,000	45,000
1958	900,000	15,000		15,000	15,000		15,000	60,000
1959	900,000	15,000		15,000	15,000		15,000	75,000
1960	900,000	15,000		15,000	15,000		15,000	90,000
1961	900,000	15,000		15,000	15,000		15,000	105,000
1962	900,000	15,000		15,000	15,000		15,000	120,000
1963	900,000	15,000		15,000	15,000		15,000	135,000
1964	900,000	15,000		15,000	15,000		15,000	150,000
1965	900,000	15,000		15,000	15,000		15,000	165,000
1966	900,000	15,000		15,000	15,000		15,000	180,000
1967	900,000	15,000		15,000	15,000		15,000	195,000
1968	900,000	15,000		15,000	15,000		15,000	210,000
1969	900,000	15,000		15,000	15,000		15,000	225,000
Total		225,000		225,000	225,000		225,000	

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1951	¹ \$6,000	\$6,000
1952	¹ 7,000	7,000
1953	¹ 7,500	7,500
1954	8,000	8,000
1955	8,000	8,000
1956	9,000	9,000
1957	11,425	11,425
1958	8,000	8,000
1959	¹ - 701	- 701
1959	10,385	10,385
1960	9,400	9,400
1961	10,100	10,100
1962	10,500	10,500
1963	² - 2,576	² - 2,576
Total	102,033	102,033

¹ Excess of O&M assessment over cost of \$701 during development period applied on repayment obligation in fiscal year 1959.

² Water users assumed O&M responsibility on January 1, 1963. The amount of \$2,576 represents the unexpended balance of previous year's assessment which was refunded to the Mancos Water Conservancy District.

MANN CREEK PROJECT

IDAHO

The Mann Creek project was authorized by Congress on August 16, 1962, by Public Law 87-589 (76 Stat. 388). An earlier Mann Creek project, just north of Owyhee project, was authorized by the Secretary on March 10, 1941, approved by the President July 7, 1941, under the terms of the Water Conservation and Utilization Act of August 11, 1939, as amended. Construction was never begun because the water users, in an election, failed to support the project.

Project features include Mann Creek Dam and Reservoir (formerly Spangler Dam and Reservoir), having an active storage capacity of 11,000 acre-feet, drainage ditches, recreational facilities, and fish screens. The project was authorized to provide a water supply to the Mann Creek and Monroe Creek Irrigation Districts. Both of these Districts are located in Washington County, Idaho. Other functions of the project are conserving and developing fish and wildlife and providing recreation benefits.

In 1969, the irrigable area for service in the Mann Creek Irrigation District was 4,225 acres and the irrigated area consisted of 3,855 acres. The gross value of crops produced on these lands was \$283,428 and the average value per irrigated acre was \$73.52. For the Monroe Creek Irrigation District, the irrigable area for service in 1969 was 860 acres, and the irrigated area 835 acres. The gross value of crops was \$52,324, and the average value per irrigated acre was \$62.66.

Total project cost is \$3,851,437, of which \$3,714,977 is the cost of Mann Creek Dam and Reservoir. Construction began in 1965 and was substantially completed in 1967.

Allocation of costs and repayment:

Mann Creek Dam and Reservoir	<u>\$3,851,437</u>
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Reimbursable:

Repayment by irrigation water users	810,800
Repayment by power revenues (Bonneville Power Administration)	2,845,881

Nonreimbursable:

Recreation	114,769
Fish and wildlife	18,487
Highway relocation	61,500

Total	<u><u>3,851,437</u></u>
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Repayment contracts.—A repayment contract, dated January 18, 1965, with the Mann Creek Irrigation District provided for the repayment of \$770,400 in 40 years. Repayment contract dated December 28, 1964, with the Monroe Creek Irrigation District covers an obligation of \$40,400, also payable in 40 years. Repayment of costs allocated to irrigation in excess of water users ability to repay within specified periods will be derived from power revenues from the power marketed through the Federal power system in southern Idaho. Neither contract provides for a development period and construction repayment is initially scheduled on a fixed installment basis. However, both contracts provide for the adoption of a variable repayment formula that would be established by mutual agreement between the Districts and the Secretary of the Interior.

The first payment became due and was paid in fiscal year 1969.

CONTRACTS AND NOTICES

1964, December 28: Contract 14-06-100-5204 with Monroe Creek Irrigation District to repay \$40,400 in 40 equal annual installments.

1965, January 18: Contract 14-06-100-5203 with Mann Creek Irrigation District to repay \$770,400 in 40 equal annual installments.

1967, December 8: Announcement to Mann Creek Irrigation District advising of substantial completion of project works. 40-year repayment period began in 1968, with initial annual installment of \$19,260 due one-half on December 31, 1968, and one-half on June 30, 1969.

1967, December 8: Announcement to Monroe Creek Irrigation District advising of substantial completion of project works. 40-year repayment period began in 1968, with

initial installment of \$1,010 due one-half on December 31, 1968, and one-half on June 30, 1969.

Summary of status of repayment contracts:

Total value of contracted repayment	\$810,800
Total matured charges	20,270
Total matured charges repaid	20,270
Total matured charges unpaid	0

McMILLAN DELTA PROJECT

NEW MEXICO

The McMillan Delta project was authorized by act of Congress February 20, 1958 (72 Stat. 17).

Construction has been completed on the Malaga Bend division, which consists of works to relieve the flow of brine into the Pecos River at Malaga Bend, about 20 miles southeast of Carlsbad, N. Mex. Construction of the Channelization division is withheld pending the achievement of several requirements of the authorizing legislation.

The purpose of the Malaga Bend division is to lower the elevation of the brine at Malaga Bend below the stream bed of the Pecos River so the seeps and springs will cease to flow into the river. The works consist of an 8-inch brine production well 200 feet deep; an electric submersible pump capable of delivering 450 gallons per minute against a head of 160 feet; 2 miles

of 8-inch asbestos-cement pipeline; 720 feet of 6-inch flexible plastic pipe; and a compacted earthlined depression. The plan is to pump the brine into the depression where the water is to be evaporated.

The total estimated project cost as now planned is \$1,209,178, of which the Malaga Bend division cost to June 30, 1969, is \$277,178. As provided in the authorizing legislation, all construction costs of the Malaga Bend division are nonreimbursable.

Operation, maintenance, and replacement activities of the division are performed by the Red Bluff Water Power Control District, Texas, and all costs are borne by that agency.

Construction costs of the Channelization division will be reimbursable to the extent of the water users' ability to pay over a 50-year period.

MICHAUD FLATS PROJECT

IDAHO

The Michaud Flats project was authorized by Congress on August 31, 1954 (68 Stat. 1062). The project is located in Power County in southern Idaho, and encompasses approximately 11,300 acres of irrigable land located southeast of American Falls Reservoir on the Snake River.

The principal project features include the American Falls Pumping Plant, with four pumping units and appurtenant works, 22 miles of main canals, 15 miles of open laterals, 15 miles of buried pressure pipe laterals, and 25 deep wells. The development lifts storage water from American Falls Reservoir which, together with pumped ground water, serves the project area, most of which was previously devoted to grazing and dry land wheat production.

The irrigable area for service in 1969 was 11,282 acres, and the irrigated area was 10,462 acres. The gross crop value for crop year 1969 was \$1,933,096, and the average value per irrigated acre was \$184.77. Under irrigation, project lands are used primarily for the production of general crops, row crops, and livestock.

The total estimated project cost is \$4,904,986, which excludes reservoir water supply costs apportioned to the project for repayment, amounting to \$103,218 for American Falls Reservoir and \$316,975 for Palisades Reservoir. All costs are reimbursable and are allocated \$4,652,630 to irrigation and \$252,356 to highway location. Of the total project cost, \$2,823,875 is to be repaid by the District and the remainder is to be paid from power revenues from Palisades Powerplant.

Contractual arrangements with the District provide that the repayment obligation may also be reduced by \$262 for each acre less than 11,000 acres if the total irrigable acreage is finally established at less than that figure. However, with an approximate \$450,000 construction program anticipated to be completed in fiscal year 1970, it is expected that the irrigable area will

be increased to over 11,000 acres. This will require a corresponding increase in the District's obligation.

Construction began in fiscal year 1956 and was basically completed early in 1958, except for the additional canal and lateral work being completed by the Falls Irrigation District under the current construction program. A 10-year development period began January 1, 1959, and ended December 31, 1968. The project was operated and maintained by the Bureau during 1959 and 1960 and was turned over to the Falls Irrigation District effective January 1, 1961. A deficit of \$59,629.78, incurred during Bureau operation of the project, was repaid to the Bureau in accordance with the following schedule:

1962	.....	\$9,240.00
1963	.....	9,240.00
1964	.....	13,500.00
1965	.....	13,500.00
1966	.....	13,500.00
1967	.....	649.78

Repayment contracts.—The repayment contract with the District, dated December 9, 1955, provides for repayment to the United States of a maximum construction cost obligation of \$2,875,000. This obligation includes the water supply cost for Palisades Reservoir in the amount of \$368,100, which was reduced to a minimum of \$316,975. Annual installments shall be determined by applying the "normal and percentage" variable repayment plan.

CONTRACT

1955, December 9: Contract 14-06-100-851 with Falls Irrigation District to repay an amount not to exceed \$2,875,000 in 50 annual installments beginning in 1969. The first installment to be due for the first calendar year following the close of a 10-year development period. Each annual installment to be due and payable one-half on April 15 of the year following that for which it is applicable and one-half on the following June 30.

Status of repayment contract:

Total value of contracted repayment	\$2,823,875
Total matured charges	3,840
Total matured charges repaid	3,840
Total matured charges unpaid	0

Statement of cost and repayment:

<i>Cost:</i>	
Irrigation plant	\$4,864,388
Property transfers	17,935
Transitional development costs	22,663
Total project cost	4,904,986

Repayment obligation assumed:

Minidoka project	103,218
Palisades project	316,975
Total	5,325,179

Repayment:

Repayment contracts	2,823,875
Repayment by power revenues—Bonneville Power	
Administration	2,226,560
Contributions	252,711
Miscellaneous income	22,033
Total	5,325,179

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior year and adjustments	Total	Cumulative total
1967-----	\$2,823,875	-----	\$3,840	\$3,840	-----	\$3,840	\$3,840	\$3,840
1968-----	2,823,875	-----	-----	-----	-----	-----	-----	3,840
1969-----	2,823,875	-----	-----	-----	-----	-----	-----	3,840
Total--	-----	-----	3,840	3,840	-----	3,840	3,840	-----

MIDDLE RIO GRANDE PROJECT

NEW MEXICO

The comprehensive plan for the Middle Rio Grande project was approved by the Flood Control Act of June 30, 1948 (62 Stat. 1171, 1179). Completion of the approved plan was authorized by the Flood Control Act of May 17, 1950 (64 Stat. 163). The project extends along the Middle Rio Grande Valley from the Colorado-New Mexico boundary south to the backwaters of the Elephant Butte Reservoir and includes rectification of the Rio Grande in the vicinity of Truth or Consequences, N. Mex.

The comprehensive plan was designed to improve and stabilize the economy of the Middle Rio Grande Valley by rehabilitation of the Middle Rio Grande Conservancy District and by controlling sedimentation and flooding. The plan was developed jointly by the Bureau of Reclamation and the Corps of Engineers in cooperation with other Federal, State and local agencies. The Corps of Engineers was authorized to construct two dams for flood and sediment control, and levees for local flood protection. Subsequently, by the 1960 Flood Control Act, the Corps of Engineers was also authorized to construct the Cochiti and Galisteo Dams and Reservoirs.

The Bureau of Reclamation was authorized to perform rehabilitation of the Middle Rio Grande Conservancy District, including acquisition of District lands, rehabilitation of El Vado Dam and diversion dams, and drainage rehabilitation and extension, and channel rectification on the Rio Grande. The water-right irrigable area of the project is 121,680 acres, of which 40,070 have not been certified as meeting Bureau of Reclamation standards. However, 8,100 acres of class 6-W land has been administratively classified as irrigable. Of the 121,680 acres of irrigation service land, 59,071 acres were irrigated during the 1969 crop year, with gross crop value of \$6,845,429 and an average of \$115.88 per acre.

The rehabilitated District works are all operated and maintained by the United States with funds advanced by the water users, pending transfer of responsibility to the Middle Rio Grande Conservancy District. The channel works are operated and maintained by the United States with nonreimbursable annual appropriated funds.

The total project cost is \$35,481,741, including bond acquisition costs to the United States of \$5,300,000. Cost of irrigation and drainage rehabilitation on non-Indian lands will be repaid by the water users and cost of irrigation facilities serving Indian lands will be nonreimbursable.

Statement of cost and repayment:

Plant, property, and equipment	
Channels, levees and floodworks	\$17,015,524
Irrigation plant	18,264,457
El Vado recreational area	201,760
Total cost	<u>35,481,741</u>
Reimbursable costs:	
Irrigation:	
Water users (repayment contract)	15,710,392
Contributions	5,767
Funds advanced by water users	186,065
River channelization, contributions	1,086,523
Nonreimbursable costs:	
Irrigation:	
Indian land participation	2,174,927
Basic water supply data	189,117
River channelization	15,929,001
Recreation	201,760
Total	<u>35,483,552</u>
Surplus	1,811

CONTRACTS

1951, September 24: Contract I78-423 with Middle Rio Grande Conservancy District for the repayment of construction costs in 40 annual installments, with installments due dates of February 1 and August 1 of each

year. The irrigable acreage on date of contract was 21,680.

1953, June 19: Amendment No. 1 deleted a portion of the contract to conform to the opinion of the Supreme Court of the State of New Mexico, filed May 11, 1953.

1955, January 4: Amendment No. 2 established date for the Bureau of Reclamation to assume operation and maintenance of District works except El Vado Dam and Reservoir.

1956, May 22: Amendment No. 3 provided for the Bureau of Reclamation to assume operation and maintenance of El Vado Dam and Reservoir.

1963, June 25: Amendment No. 4 provides ways and means for the Middle Rio Grande Conservancy District to contract for a supplemental supply of water through the San Juan-Chama project, New Mexico, to be used for irrigation of irrigable and arable lands within the District.

Summary of status of repayment contract:

Total value of contracted repayment	\$15,710,392
Total matured charges	4,299,227
Total matured charges repaid	4,299,227
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1957-----	\$15,740,000	\$12,027	-----	\$12,027	\$12,027	-----	\$12,027	\$12,027
1958-----	15,740,000	400,000	-----	400,000	400,000	-----	400,000	412,027
1959-----	15,740,000	400,000	-----	400,000	400,000	-----	400,000	812,027
1960-----	15,740,000	400,000	-----	400,000	400,000	-----	400,000	1,212,027
1961-----	15,740,000	181,600	-----	181,600	181,600	-----	181,600	1,393,627
1962-----	15,740,000	363,199	-----	363,199	363,199	-----	363,199	1,756,826
1963-----	15,740,000	363,199	-----	363,199	363,199	-----	363,199	2,120,025
1964-----	15,740,000	363,204	-----	363,204	363,204	-----	363,204	2,483,229
1965-----	15,740,000	365,649	-----	365,649	365,649	-----	365,649	2,848,878
1966-----	15,710,633	363,082	-----	363,082	363,082	-----	363,082	3,211,960
1967-----	15,710,392	362,733	-----	362,733	362,733	-----	362,733	3,574,693
1968-----	15,710,392	362,267	-----	362,267	362,267	-----	362,267	3,936,960
1969-----	15,710,392	362,267	-----	362,267	362,267	-----	362,267	4,299,227
Total -----	-----	4,299,227	-----	4,299,227	4,299,227	-----	4,299,227	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1955-----	\$350,000	\$350,000
1956-----	750,000	750,000
1957-----	713,851	713,851
1958-----	831,523	831,523
1959-----	821,062	821,062
1960-----	838,146	838,146
1961-----	857,347	857,347
1962-----	886,531	886,531
1963-----	1,012,275	1,012,275
1964-----	1,036,161	1,036,161
1965-----	1,180,421	1,180,421
1966-----	1,155,044	1,155,044
1967-----	1,457,466	1,457,466
1968-----	1,330,566	1,330,566
1969-----	1,481,596	1,481,596
Total -----	14,701,989	14,701,989

MILK RIVER PROJECT

MONTANA

The Milk River project was authorized by the Secretary under the Reclamation Act of 1902 on March 25, 1905. Fresno Dam and Reservoir was constructed under the National Industrial Recovery Act and approved by the President in August 1935. The Dodson Pumping unit was approved by the President on March 17, 1944, under the provisions of the Water Conservation and Utilization Act.

The project, located in Blaine, Glacier, Phillips, and Valley Counties in northcentral Montana, furnishes water for the irrigation of approximately 121,000 acres of land divided into the Chinook, Malta, and Glasgow divisions, the Dodson Pumping unit, the Fort Belknap Indian Reservation, and approximately two hundred individuals pumping from the river and canals along the Milk River Valley. Of these lands, 99,133 acres were irrigated in 1969. In addition, the project provides water to three municipalities, a migratory waterfowl refuge, to the Great Northern Railway Co. and for other minor uses.

The project provides for storage of water from St. Mary River in the Sherburne Lake behind Sherburne Lake Dam and its diversion through a 29-mile canal, discharging into the North Fork of the Milk River. It then flows through Canada for 216 miles before returning to the United States. Milk River water is stored in Fresno Reservoir, located 17 miles west of Havre, Mont., and in Nelson Reservoir, 19 miles northeast of Malta. The water is diverted from the Milk River near Chinook and Harlem into private canals on each side of the river for land in that area, comprising the Chinook division. Except for storage facilities, all water supply and distribution works in this area were originally constructed and are operated and maintained by the five irrigation districts comprising the Chinook division. Near Dodson, two canals divert water to the north and south of the Milk River. The South Canal conveys water into Nelson Reservoir, and from this

storage, land is irrigated on the south side of the Milk River and Beaver Creek near Saco and Hinsdale. These facilities service the Malta division. At Vandalia Diversion Dam, a canal on the south side of the Milk River carries water for the irrigation of land near Tampico, Glasgow, and Nashua, comprising the Glasgow division. The Nelson Reservoir and the distribution systems for these two divisions are operated by the Malta and Glasgow Irrigation Districts. The Dodson Pumping unit pumps water from the Dodson North Canal to irrigate lands above the gravity system. These facilities are operated by the Dodson Irrigation District under an agreement with the Malta Irrigation District.

The project was originally planned to serve 219,557 acres; however, a total of 90,254 acres of the original planned acreage was determined to be nonirrigable and a proportionate share of the construction costs written off as a loss under the Omnibus Adjustment Act of May 25, 1926. Various minor classifications of land have since brought the total irrigable area for service down to a total of 120,872 acres for calendar year 1969 as follows:

Division and miscellaneous	Irrigable area (acres)	Acres irrigated	Gross crop value	Average per acre
Chinook -----	37,272	32,408	\$1,882,668	\$58.09
Dodson Pumping -----	1,147	845	30,245	35.79
Glasgow -----	18,011	12,422	513,493	41.34
Malta -----	42,463	33,896	1,107,718	32.68
Fort Belknap Indian Reservation -----	10,437	10,437	170,762	16.36
Private pumpers -----	11,542	9,125	412,852	45.24
Total -----	120,872	99,133	4,117,738	41.54

The major project features consist of the Sherburne Lake, Nelson, and Fresno Storage Dams; the Dodson, Vandalia, St. Mary, and Swift Current Diversion Dams; the Dodson Pumping Plant, 200 miles of canals, 236 miles of laterals, and 286 miles of drains.

The storage and conveyance works were constructed over a period of years, with numerous contracts executed for repayment of the costs of each of the various project components. This resulted in an intermixing among the contractors of water rights and services from the St. Mary and Fresno water supply facilities. In 1966, a plan was developed to equalize the water rights among all agricultural users on the project and to adjust the repayment obligations to conform with the assigned water rights. Miscellaneous project revenues that had accumulated to June 30, 1966, were distributed under this plan, resulting in a slight decrease in the repayment obligation for all contractors. As of June 30, 1969, all of the districts and 160 of the 193 individual pumpers had entered into amendatory contracts equalizing their water rights.

The project water supply works are operated by the Bureau of Reclamation with funds advanced by the water users and funds appropriated for flood control benefits. The distribution systems are all operated and maintained by the water users organizations.

CHINOOK DIVISION

All carriage and distribution works were originally constructed and are operated and maintained by each

of the five irrigation districts that comprise the Chinook division. The Paradise Valley Diversion Dam, which was destroyed by a flood in June 1965, was rebuilt by the Bureau of Reclamation under contract with the Paradise Valley Irrigation District. Under terms of the contract the District will repay the total construction costs of \$434,641 in 80 semiannual installments, the first falling due December 31, 1967. The irrigation districts within the Chinook division are: Fort Belknap, Alfalfa Valley, Paradise Valley, Zurich, and Harlem. Water is diverted near Lohman for the Fort Belknap, Alfalfa Valley, and Zurich Districts and southeast of Chinook for the Paradise Valley District. An electric pumping plant east of Zurich furnishes water for the Harlem District.

Each of the districts executed contracts with the United States for repayment of its proportionate share of the St. Mary water supply works and for a supplemental water supply from Fresno reservoir. Contracts for rehabilitation work on the St. Mary facilities were also executed in 1949, 1952, and 1962. The repayment period under these contracts was retained in the water right equalization plan with adjustments in the total repayment obligation and in the amount of the annual payments.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,539,967
Total matured charges	744,789
Total matured charges repaid	744,789
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—CHINOOK DIVISION—ALFALFA VALLEY IRRIGATION DISTRICT
(ST. MARY—FRESNO AND REHABILITATION AND BETTERMENT)

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932	\$51,296	(¹)						
1933	51,296	(¹)						
1934	51,325	(¹)						
1935	51,380	(¹)						
1936	51,315	(¹)						
1937	51,315	\$ 638		\$ 638	\$ 638		\$ 638	\$ 638
1938	51,315	1,276		1,276	638		638	1,276
1939	51,315	1,276		1,276	638	\$ 638	1,276	2,552
1940	51,315	1,276		1,276	638	1,276	1,914	4,466
1941	51,315	1,276		1,276	638		638	5,104
1942	51,315	1,276		1,276	638	638	1,276	6,380
1943	51,315	1,276		1,276	638	638	1,276	7,656
1944	² 145,575	3,116		3,116	3,116	638	3,754	11,410
1945	145,575	3,116		3,116	3,116		3,116	14,526
1946	145,575	3,116		3,116	3,116		3,116	17,642
1947	145,575	3,116		3,116	3,116		3,116	20,758
1948	145,575	3,116		3,116	3,116		3,116	23,874
1949	³ 146,777	3,116		3,116	3,116		3,116	26,990
1950	146,777	3,116		3,116	3,116		3,116	30,106
1951	146,777	3,116		3,116	2,478		2,478	32,584
1952	⁴ 157,397	3,116		3,116	3,116	638	3,754	36,338
1953	⁴ 152,807	2,929		2,929	2,384		2,384	38,722
1954	152,807	2,929		2,929	2,929	545	3,474	42,196
1955	152,807	2,929		2,929	2,929		2,929	45,125
1956	152,807	2,929		2,929	2,929		2,929	48,054
1957	152,807	2,930		2,930	2,930		2,930	50,984
1958	152,807	2,929		2,929	2,929		2,929	53,913
1959	152,807	2,929		2,929	1,465		1,465	55,378
1960	⁵ 152,968	2,929		2,929	1,464	1,464	2,928	58,306
1961	152,968	2,939		2,939	1,469	1,465	2,934	61,240
1962	152,968	2,939		2,939	1,469	1,470	2,939	64,179
1963	⁶ 161,880	3,179		3,179	1,709	1,470	3,179	67,358
1964	161,880	4,693		4,693	3,937		3,937	71,295
1965	161,880	4,692		4,692	4,692		4,692	75,987
1966	161,880	4,693		4,693	4,693		4,693	80,680
1967	⁷ 108,644	4,692		4,692	4,692	2,226	6,918	87,598
1968	108,644	797	1,369	2,166	797	1,369	2,166	89,764
1969	108,644	676	734	1,410	676	734	1,410	91,174
Total		89,071	2,103	91,174	75,965	15,209	91,174	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred for 5-year period, \$5,770.75.

² Added Fresno contract for \$94,260.

³ Includes rehabilitation and betterment obligations: 1949, \$1,202; and 1952, \$10,620.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works in art. 10 of contract H-664.

⁵ Reclassification of lands.

⁶ Sherburne rehabilitation.

⁷ Water right equalization plan.

**CONSTRUCTION REPAYMENT HISTORY—CHINOOK DIVISION—FORT BELKNAP IRRIGATION DISTRICT
(ST. MARY—FRESNO AND REHABILITATION AND BETTERMENT)**

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932	\$107,832	(¹)						
1933	107,832	(¹)						
1934	107,862	(¹)						
1935	107,921	(¹)						
1936	107,862	(¹)						
1937	107,862	\$ 671		\$ 671	\$ 671		\$ 671	\$ 671
1938	107,862	1,343		1,343				671
1939	107,862	1,343		1,343		\$ 1,342	1,342	2,013
1940	107,862	1,343		1,343	1,343	894	2,237	4,250
1941	107,862	1,343		1,343	672	1,121	1,793	6,043
1942	107,862	1,343		1,343	1,343		1,343	7,386
1943	107,862	1,343		1,343	1,343		1,343	8,729
1944	² 207,090	3,255		3,255	3,255		3,255	11,984
1945	207,090	3,255		3,255	3,255		3,255	15,239
1946	207,090	3,255		3,255	2,583		2,583	17,822
1947	207,090	3,255		3,255	3,255	672	3,927	21,749
1948	207,090	3,255		3,255	3,255		3,255	25,004
1949	³ 209,616	3,255		3,255	3,256		3,256	28,260
1950	209,616	3,256		3,256	3,256		3,256	31,516
1951	209,616	3,256		3,256	2,584		2,584	34,100
1952	⁴ 231,948	3,256		3,256	3,256	672	3,928	38,028
1953	⁴ 222,278	3,059		3,059	2,485		2,485	40,513
1954	222,278	3,059		3,059	3,059	574	3,633	44,146
1955	222,278	3,059		3,059	3,059		3,059	47,205
1956	222,278	3,059		3,059	1,529		1,529	48,734
1957	222,278	3,059		3,059	3,059	1,529	4,588	53,322
1958	222,278	3,059		3,059	3,059		3,059	56,381
1959	222,278	3,059		3,059	1,529		1,529	57,910
1960	⁵ 207,021	3,059		3,059	3,059	1,530	4,589	62,499
1961	207,020	3,908		3,908	3,908		3,908	66,407
1962	207,020	3,908		3,908	1,954		1,954	68,361
1963	⁶ 222,798	4,413		4,413	4,413	1,954	6,367	74,728
1964	222,798	6,412		6,412	6,412		6,412	81,140
1965	222,798	6,412		6,412	6,412		6,412	87,552
1966	222,798	6,412		6,412	6,412		6,412	93,964
1967	⁷ 192,208	6,411		6,411	6,411		6,411	100,375
1968	192,208	4,530	\$2,433	6,963	4,530	2,433	6,963	107,338
1969	192,208	4,530	1,287	5,817	4,530	1,287	5,817	113,155
Total		109,435	3,720	113,155	99,147	14,008	113,155	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred for 5-year period, \$6,075.16.

² Added \$99,228 Fresno contract.

³ Includes rehabilitation and betterment contract obligations: 1949, \$2,526; and 1952, \$22,332.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract Ilr 667.

⁵ Reclassification of lands.

⁶ Sherburne rehabilitation.

⁷ Water right equalization plan.

**CONSTRUCTION REPAYMENT HISTORY—CHINOOK DIVISION—HARLEM IRRIGATION DISTRICT
(ST. MARY—FRESNO AND REHABILITATION AND BETTERMENT)**

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932	\$161,802	(¹)						
1933	161,802	(¹)						
1934	161,873	(¹)						
1935	162,011	(¹)						
1936	161,873	(¹)						
1937	161,873	\$1,566		\$1,566				
1938	161,873	3,132		3,132	\$1,566	\$1,566	\$3,132	\$3,132
1939	161,873	3,132		3,132		1,566	1,566	4,698
1940	161,873	3,132		3,132	1,566	1,566	3,132	7,830
1941	161,873	3,132		3,132	3,132	2,458	5,590	13,420
1942	161,873	3,132		3,132	3,132	674	3,806	17,226
1943	161,873	3,132		3,132	3,132		3,132	20,358
1944	161,873	3,132		3,132	3,132		3,132	23,490
1945	161,873	3,132		3,132	3,132		3,132	26,622
1946	161,873	3,132		3,132	3,132		3,132	29,754
1947	161,873	3,132		3,132	3,132		3,132	32,886
1948	161,873	3,132		3,132	3,132		3,132	36,018
1949	² 165,663	3,133		3,133	3,133		3,133	39,151
1950	165,663	3,133		3,133	3,133		3,133	42,284
1951	165,663	3,133		3,133	3,133		3,133	45,417
1952	² 199,171	3,133		3,133	3,133		3,133	48,550
1953	³ 184,659	2,674		2,674	2,674		2,674	51,224
1954	184,659	2,674		2,674	2,674		2,674	53,898
1955	⁴ 416,081	7,132		7,132	7,132		7,132	61,030
1956	416,081	7,132		7,132	3,566		3,566	64,596
1957	416,081	7,132		7,132	3,566	3,566	7,132	71,728
1958	416,081	7,132		7,132	7,132	3,566	10,698	82,246
1959	416,081	7,132		7,132	7,132		7,132	89,558
1960	⁵ 411,791	7,132		7,132	3,565		3,565	93,123
1961	411,791	7,855		7,855	3,928	3,567	7,495	100,618
1962	411,791	7,855		7,855	3,928	3,927	7,855	108,473
1963	⁶ 439,028	8,613		8,613	4,686	3,927	8,613	117,086
1964	439,028	10,093		10,093	9,352		9,352	126,438
1965	439,028	10,093		10,093	10,093		10,093	136,531
1966	439,028	10,954		10,954	10,954		10,954	147,485
1967	⁷ 330,623	10,090		10,090	10,090	4,668	14,758	162,243
1968	330,623	7,055	3,769	10,824	7,055	3,769	10,824	173,067
1969	330,623	6,496	2,172	8,668	6,496	2,172	8,668	181,735
Total		175,794	5,941	181,735	144,743	36,992	181,735	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$14,166.10.

² Includes rehabilitation and betterment obligations: 1949, \$3,790; and 1952, \$33,508.

³ Contract reduced by reason of determination of actual costs of St. Mary

storage works in art. 10 of contract Ilr-668.

⁴ Added Fresno contract of \$231,422.

⁵ Reclassification of lands.

⁶ Sherburne rehabilitation.

⁷ Water right equalization plan.

CONSTRUCTION REPAYMENT HISTORY—CHINOOK DIVISION—PARADISE VALLEY IRRIGATION DISTRICT
(ST. MARY—FRESNO AND REHABILITATION AND BETTERMENT)

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932-----	\$143,468	(¹)						
1933-----	143,468	(¹)						
1934-----	143,524	(¹)						
1935-----	143,633	(¹)						
1936-----	143,524	(¹)						
1937-----	143,524	\$1,233		\$1,233				
1938-----	143,524	2,465		2,465	\$1,233	\$1,233	\$2,466	\$2,466
1939-----	143,524	2,465		2,465	2,465	1,233	3,698	6,164
1940-----	143,524	2,465		2,465	1,234	1,233	2,467	8,631
1941-----	143,524	2,465		2,465	1,234		1,234	9,865
1942-----	143,524	2,465		2,465	1,234	1,233	2,467	12,332
1943-----	143,524	2,465		2,465	2,465	1,226	3,691	16,023
1944-----	143,524	2,465		2,465	2,465		2,465	18,488
1945-----	² 325,604	6,015		6,015	6,015		6,015	24,503
1946-----	325,604	6,014		6,014	6,014		6,014	30,517
1947-----	325,604	6,014		6,014	6,014		6,014	36,531
1948-----	325,604	6,014		6,014	6,014		6,014	42,545
1949-----	³ 328,965	6,014		6,014	6,014		6,014	48,559
1950-----	328,965	6,014		6,014	6,014		6,014	54,573
1951-----	328,965	6,014		6,014	6,014		6,014	60,587
1952-----	³ 358,680	6,014		6,014	4,782		4,782	65,369
1953-----	⁴ 345,814	5,654		5,654	5,654	1,232	6,886	72,255
1954-----	345,814	5,654		5,654	5,654		5,654	77,909
1955-----	345,814	5,654		5,654	5,654		5,654	83,563
1956-----	345,814	5,654		5,654	5,654		5,654	89,217
1957-----	345,814	5,654		5,654	5,654		5,654	94,871
1958-----	345,814	5,654		5,654	5,654		5,654	100,525
1959-----	345,814	5,654		5,654	5,654		5,654	106,179
1960-----	⁶ 321,562	5,654		5,654	5,654		5,654	111,833
1961-----	321,562	6,069		6,069	6,069		6,069	117,902
1962-----	321,562	6,069		6,069	6,069		6,069	123,971
1963-----	⁶ 341,817	6,741		6,741	3,707		3,707	127,678
1964-----	341,817	7,840		7,840	10,874		10,874	138,552
1965-----	341,817	9,845		9,845	9,845		9,845	148,397
1966-----	⁷ 791,816	9,845		9,845	9,845		9,845	158,242
1967-----	⁸ 696,578	9,846		9,846	9,846		9,846	168,088
1968-----	⁹ 681,219	3,998	3,117	7,115	3,998	3,117	7,115	175,203
1969-----	681,219	3,998	1,648	5,646	3,998	1,648	5,646	180,849
Totals--		176,084	4,765	180,849	168,694	12,155	180,849	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$11,146.49.

² Added Fresno contract for \$182,080.

³ Includes rehabilitation and betterment obligations: 1949, \$3,361; and 1952, \$29,715.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract H-665.

⁵ Reclassification of lands.

⁶ Sherburne rehabilitation.

⁷ Reconstruction Paradise Valley Diversion Dam.

⁸ Water right equalization plan.

⁹ Reduction of obligation for reconstruction Paradise Valley Diversion Dam to actual costs.

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—CHINOOK DIVISION—ZURICH IRRIGATION DISTRICT
(ST. MARY—FRESNO AND REHABILITATION AND BETTERMENT)

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1932-----	\$120,562	(¹)						
1933-----	120,562	(¹)						
1934-----	120,619	(¹)						
1935-----	120,730	(¹)						
1936-----	120,619	(¹)						
1937-----	120,619	\$1,255		\$1,255	\$1,255		\$1,255	\$1,255
1938-----	120,619	2,510		2,510	2,510		2,510	3,765
1939-----	120,619	2,510		2,510	2,510		2,510	6,275
1940-----	120,619	2,510		2,510	2,510		2,510	8,785
1941-----	120,619	2,510		2,510	1,255		1,255	10,040
1942-----	120,619	2,510		2,510	1,255	\$1,255	2,510	12,550
1943-----	120,619	2,510		2,510	2,510	1,255	3,765	16,315
1944-----	120,619	2,510		2,510	2,510		2,510	18,825
1945-----	² 306,029	6,125		6,125	6,125		6,125	24,950
1946-----	306,029	6,126		6,126	6,126		6,126	31,076
1947-----	306,029	6,125		6,125	4,871		4,871	35,947
1948-----	306,029	6,125		6,125	6,125		6,125	42,072
1949-----	³ 308,853	6,125		6,125	6,125	1,255	7,380	49,452
1950-----	308,853	6,125		6,125	6,125		6,125	55,577
1951-----	308,853	6,125		6,125	4,871		4,871	60,448
1952-----	³ 333,826	6,125		6,125	4,871	1,255	6,126	66,574
1953-----	⁴ 323,014	5,758		5,758	4,686	1,255	5,941	72,515
1954-----	323,014	5,758		5,758	4,686	1,071	5,757	78,272
1955-----	323,014	5,757		5,757	4,685	1,071	5,756	84,028
1956-----	323,014	5,757		5,757	2,878	1,071	3,949	87,977
1957-----	323,014	5,757		5,757	2,878	2,879	5,757	93,734
1958-----	323,014	5,757		5,757	5,757	2,879	8,636	102,370
1959-----	323,014	5,758		5,758	5,758		5,758	108,128
1960-----	⁵ 310,994	5,758		5,758	5,758		5,758	113,886
1961-----	310,994	5,917		5,917	5,917		5,917	119,803
1962-----	⁶ 311,506	5,922		5,922	5,922		5,922	125,725
1963-----	⁶ 330,118	6,487		6,487	6,487		6,487	132,212
1964-----	330,118	7,505		7,505	7,505		7,505	139,717
1965-----	330,118	9,543		9,543	9,543		9,543	149,260
1966-----	330,118	9,952		9,952	9,952		9,952	159,212
1967-----	⁷ 227,273	9,541		9,541	9,541		9,541	168,753
1968-----	227,273	2,945	2,324	5,269	2,945	2,324	5,269	174,022
1969-----	227,273	2,365	1,489	3,854	2,365	1,489	3,854	177,876
Total-----		174,063	3,813	177,876	158,817	19,059	177,876	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, 1933, 1934, 1935, and 1936. Total amount deferred, \$11,350.28.

² Added Fresno contract, \$185,410.

³ Includes rehabilitation and betterment obligations: 1949, \$2,824; and 1952, \$24,973.

⁴ Contract reduced by reason of determination of actual costs of St. Mary storage works and art. 10 of contract Ilr 666.

⁵ Reclassification of lands.

⁶ Sherburne rehabilitation.

⁷ Water right equalization plan.

PAYOUT SCHEDULE

Fiscal year	Accruals		Balance to be repaid
	Annual	Total	
Alfalfa Valley Irrigation District:			
Thru 1969		\$91,174	\$17,470
1970-1976	\$797	5,579	11,891
1977-1978	571	1,142	10,749
1979-1981	1,488	4,464	6,285
1982	1,280	1,280	5,005
1983-1987	1,001	5,005	
Total		108,644	
Fort Belknap Irrigation District:			
Thru 1969		113,155	79,053
1970-1978	4,530	40,770	38,283
1979	5,580	5,580	32,703
1980	2,619	2,619	30,084
1981-1982	2,530	5,060	25,024
1983-1997	1,670	25,024	
Total		192,208	
Harlem Irrigation District:			
Thru 1969		181,735	148,888
1970-1974	6,886	34,430	114,458
1975-1978	7,097	28,388	86,070
1979-1982	9,208	36,832	49,238
1983-1987	7,728	38,640	10,598
1988-1990	3,059	9,177	1,421
1991	1,421	1,421	
Total		330,623	
Paradise Valley Irrigation District:			
Thru 1969		180,849	500,370
1970-1972	3,998	11,994	488,376
1973-1976	10,998	43,992	444,384
1977-1982	15,948	95,688	348,696
1983-1992	14,848	148,480	200,216
1993-1999	15,003	105,021	95,195
2000-2006	14,985	95,195	
Total		681,219	
Zurich Irrigation District:			
Thru 1969		177,876	49,397
1970-1978	2,497	22,473	26,924
1979-1981	3,239	9,717	17,207
1982	2,624	2,624	14,583
1983-1989	2,229	14,583	
Total		227,273	

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—CHINOOK DIVISION

Fiscal year	Accruals	Collections
1927	\$9,503	\$9,503
1928	8,900	8,900
1929	6,600	5,725
1930	5,930	6,020
1931	6,000	6,785
1932	4,000	3,595
1933	11,089	8,641
1934	4,607	6,629
1935	4,623	4,110
1936	5,198	5,925
1937	5,265	5,296
1938	6,059	5,855
1939	4,655	2,838
1940	5,181	7,176
1941	4,066	4,592
1942	5,078	4,970
1943	3,307	3,465
1944	4,277	4,314
1945	5,189	4,622
1946	6,250	5,130
1947	6,326	8,012
1948	6,735	6,735
1949	5,093	5,093
1950	9,564	9,564
1951	8,964	8,964
1952	11,167	11,167
1953	13,291	13,291
1954 ¹	9,987	9,987
1955	8,269	8,269
1956	6,770	5,179
1957	8,090	9,681
1958	11,465	11,465
1959	11,465	11,465
1960	11,465	11,465
1961	7,963	7,963
1962	9,333	9,333
1963	10,554	10,554
1964	11,777	11,777
1965	10,402	10,402
1966	14,322	14,322
1967	13,079	13,079
1968	12,788	12,788
1969	13,616	13,616
Total	348,262	348,262

¹ Operation and maintenance on everything but joint works was turned over to the districts in 1954.

DODSON PUMPING UNIT

The Dodson pumping unit was constructed under the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), at a cost of \$125,372. Contract 11r-1438 was entered into on June 1, 1945, for repayment of the reimbursable portion of these costs of \$28,490; \$10,056 for the previously existing Dodson North Canal from which water is pumped into the Dodson system; and \$40,224 for the St. Mary and Fresno water supply facilities, adjusted to \$28,976

under the water right equalization plan.

The first of 80 semiannual installments of construction charges was due on December 31, 1955. It is estimated that repayment will be completed in the year 2000 under the present variable formula plan.

Summary of status of repayment contract:

Total value of contracted repayment	\$67,522
Total matured charges	13,850
Total matured charges repaid	13,850
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—DODSON IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1956-----	\$80,500	\$500	-----	\$500	-----	-----	-----	-----
1957-----	80,500	500	-----	500	\$250	\$500	\$750	\$750
1958-----	80,500	500	-----	500	500	250	750	1,500
1959-----	80,500	500	-----	500	500	-----	500	2,000
1960-----	80,500	500	-----	500	500	-----	500	2,500
1961-----	80,500	1,200	-----	1,200	1,200	-----	1,200	3,700
1962-----	80,500	1,200	-----	1,200	1,200	-----	1,200	4,900
1963-----	80,500	1,200	-----	1,200	1,200	-----	1,200	6,100
1964-----	80,500	1,200	-----	1,200	1,200	-----	1,200	7,300
1965-----	80,500	1,200	-----	1,200	1,200	-----	1,200	8,500
1966-----	80,500	984	-----	984	984	-----	984	9,484
1967-----	¹ 67,522	1,021	-----	1,021	1,021	-----	1,021	10,505
1968-----	67,522	1,253	² \$527	1,780	1,253	² 527	1,780	12,285
1969-----	67,522	1,023	² 542	1,565	1,023	² 542	1,565	13,850
Total -----	-----	12,781	1,069	13,850	12,031	1,819	13,850	-----

¹ Amendatory contract equalizing water rights.

² Revenue from rental of farming and grazing lands.

**OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—DODSON PUMPING UNIT ¹**

Fiscal year	Accruals	Collections
1949-----	\$3,657	\$3,657
1950-----	2,059	2,059
1951-----	2,488	2,488
1952-----	786	786
1953-----	560	560
1961-----	52	52
1962-----	43	43
1963-----	60	60
1964-----	49	49
1965-----	75	75
1966-----	68	68
1967-----	101	101
1968-----	283	283
1969-----	292	292
Total -----	10,573	10,573

¹ Operation and maintenance of all facilities except the St. Mary and Fresno water supply works was turned over to the District in 1954. The District was not billed for O&M of the water supply works during the period 1954 through 1960.

MALTA AND GLASGOW DIVISIONS

All facilities serving the Malta and Glasgow divisions except the St. Mary and Fresno water supply works were turned over to the Malta and Glasgow Irrigation Districts for operation and maintenance in 1954.

Difficulty had been encountered in meeting the terms of the early contracts. All construction payments due prior to June 1937 were deferred, and several more were deferred subsequently. To June 30, 1952, \$609,404 had become due and \$388,723 had been paid on contracts. By June 30, 1952, \$124,390 had become due on Fresno Dam contract, but no payment had been made. Because of these difficulties, a land reclassification was made in 1947, and economic investigations were made, leading to a sound repayment plan. Amendatory repayment contracts, negotiated pursuant to section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187), executed by the districts and confirmed by the court (Malta, March 6, 1951; and Glasgow, October 1, 1951) were approved by act of Congress June 23, 1952 (66 Stat. 151), and executed by the Secretary of the Interior on September 10, 1952. These amendatory contracts combined the obligations under the several former contracts including Fresno storage costs into a single obligation for each District.

The total remaining obligation as restated in the amendatory contract with the Glasgow District was \$1,588,801 as of December 31, 1949. This was the balance remaining after applying \$117,898 of previous water user payments and revenue credits on the District's overall obligation of \$1,706,699. The obligation of the Malta District as of December 31, 1949, as restated in its amendatory contract was \$3,662,165,

which was the balance remaining after applying \$381,945 of previous payments and revenue credits on the District's overall obligation of \$4,044,110.

The consolidated obligations in the Malta and Glasgow contracts include the share of these districts in the rehabilitation of the St. Mary's storage works amounting to \$175,150 plus \$550,000 for the rehabilitation of irrigation distribution facilities specific to the two districts.

Additional contracts executed in October 1958 for repayment of a share of the cost of emergency maintenance of the Sherburne Reservoir outlet works increased the obligations of the Malta and Glasgow Districts by \$87,625 and \$37,093, respectively.

After reclassification of class 5 lands pursuant to the 1952 contracts, the Malta District had 42,558 irrigable acres and the Glasgow District 18,011 acres. Right-of-way contracts have reduced the Malta irrigable acreage to 42,485 acres. The annual payments amount to \$33,725 for Malta and \$15,024 for Glasgow. In addition to the District payments, the revenues from the sale or lease of farming and grazing lands are applied to the District obligation.

The 1952 contracts were amended in 1965 to provide for an adjustment of the annual installments under a variable formula plan and in 1967 to equalize the water rights with adjustments in the repayment obligation to conform with the assigned rights.

Summary of status of repayment contracts:

Total value of contracted repayment	\$4,960,341
Total matured charges	1,428,901
Total matured charges repaid	1,428,901
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—MALTA DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1927	\$3,758,010							
1928	3,758,010							
1929	3,758,010	¹ \$3,003		\$3,003	\$3,003		\$3,003	\$3,003
1930	3,758,010							3,003
1931	3,758,010							3,003
1932	3,758,010	14,690		14,690				3,003
1933	3,682,479	22,190		22,190				3,003
1934	3,682,817	14,690	¹ - \$7,700	6,990				3,003
1935	3,682,817	14,690		14,690				3,003
1936	4,395,355	20,000	² - 20,000					3,003
1937	4,395,355	20,000		20,000	7,300		7,300	10,303
1938	4,395,355	20,000		20,000		\$2,700	2,700	13,003
1939	4,395,355	20,000		20,000	10,000	10,000	20,000	33,003
1940	4,395,355	20,000	² - 10,000	10,000	10,000		10,000	43,003
1941	4,395,355	20,000		20,000	10,000		10,000	53,003
1942	4,395,355	30,900		30,900	10,000	10,000	20,000	73,003
1943	4,395,355	31,000		31,000	26,000		26,000	99,003
1944	4,395,355	43,517		43,517	16,000	9,000	25,000	124,003
1945	4,395,355	43,516		43,516	15,500		15,500	139,503
1946	4,395,355	43,516		43,516	21,550	7,500	29,050	168,553
1947	4,395,355	48,516		48,516	16,100		16,100	184,653
1948	4,395,355	48,516		48,516	19,650		19,650	204,303
1949	4,408,427	36,516		36,516	10,000	9,700	19,700	224,003
1950	³ 4,047,113	30,000	³ - 122,612	-92,612	19,000	³ 141,945	160,945	384,948
1951	4,047,113	24,000		24,000	24,000		24,000	408,948
1952	4,047,113	24,000		24,000	24,000		24,000	432,948
1953	4,047,113	24,000		24,000	24,000		24,000	456,948
1954	4,047,113	24,000		24,000	24,000		24,000	480,948
1955	4,047,113	24,000		24,000	24,000		24,000	504,948
1956	4,047,113	24,000		24,000	24,000		24,000	528,948
1957	4,047,113	24,000		24,000	17,665		17,665	546,613
1958	4,044,110	24,000		24,000	24,000	6,335	30,335	576,948
1959	⁴ 4,187,528	24,000		24,000	24,000		24,000	600,948
1960	⁵ 3,576,026	24,000		24,000	24,000		24,000	624,948
1961	3,576,026	33,735	21,591	55,326	33,735	21,591	55,326	680,274
1962	3,576,026	33,735	10,422	44,157	33,735	10,422	44,157	724,431
1963	⁶ 3,520,233	33,735	15,478	49,213	33,735	15,478	49,213	773,644
1964	3,520,233	33,735	11,166	44,901	33,735	11,166	44,901	818,545
1965	3,519,264	33,735	1,412	35,147	33,735	1,412	35,147	853,692
1966	3,519,264	23,908	8,672	32,580	23,908	8,672	32,580	886,272
1967	⁷ 3,352,774	22,887	12,331	35,218	22,887	12,331	35,218	921,490
1968	3,352,774	26,632	35,051	61,683	26,632	35,051	61,683	983,173
1969	3,352,774	24,293	20,271	44,564	24,293	20,271	44,564	1,027,737
Total		1,051,655	-23,918	1,027,737	694,163	333,574	1,027,737	

¹ Purchase of right-of-way by Great Northern Railway contract Ilr 345, July 30, 1928, included—\$3,003.

² Deferment under Relief Act.

³ Recomputation of District's construction charge obligation to include \$378,605 for additional rehabilitation and betterment work, write-off charges

on nonproductive land, and cancel unpaid accruals in the amount of \$122,612.

⁴ Addition of Sherburne Rehabilitation and Betterment contract, \$143,418.

⁵ Reclassification of lands.

⁶ Adjustment, Sherburne contract.

⁷ Amendatory contract equalizing water rights.

CONSTRUCTION REPAYMENT HISTORY—GLASGOW DIVISION—GLASGOW IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1927	\$1,254,000							
1928	1,254,000							
1929	1,254,000							
1930	1,254,000							
1931	1,254,000			\$3,750				
1932	1,254,000	\$3,750		5,700				
1933	1,227,848	5,700		2,550				
1934	1,227,936	3,750						
1935	1,227,936	3,750	¹ —\$1,200					
1936	1,391,775	8,127	¹ —3,750	4,905				
1937	1,391,775	10,727	¹ —3,222	10,727				
1938	1,391,775	9,427		9,427		\$2,600	\$2,600	\$2,600
1939	1,391,775	13,327	¹ —3,955	9,372		1,300	1,300	3,900
1940	1,391,775	10,727	¹ —2,600	8,127	\$2,000	2,600	4,600	8,500
1941	1,391,775	13,328		13,328	2,600	600	3,200	11,700
1942	1,391,775	7,000		7,000	2,161	2,600	4,761	16,461
1943	1,391,775	7,260	¹ —4,800	2,460	7,260	39	7,299	23,760
1944	1,391,775	7,260		7,260	3,630		3,630	27,390
1945	1,391,775	12,514		12,514	3,630	3,630	7,260	34,650
1946	1,391,775	12,514		12,514	7,260	3,630	10,890	45,540
1947	1,391,775	16,014		16,014	7,260		7,260	52,800
1948	1,391,775	16,014		16,014	5,880		5,880	58,680
1949	1,438,500	10,764		10,764	5,510		5,510	64,190
1950	² 1,706,699	10,630	³ —45,158	—34,528	10,630	³ 43,078	53,708	117,898
1951	1,706,699	10,500		10,500	10,500		10,500	128,398
1952	1,706,699	10,500		10,500	10,500		10,500	138,898
1953	1,706,699	10,500		10,500	10,500		10,500	149,398
1954	1,706,699	10,500		10,500	10,500		10,500	159,898
1955	1,706,699	10,500		10,500	10,500		10,500	170,398
1956	1,706,699	10,500		10,500	10,500		10,500	180,898
1957	1,706,699	10,500		10,500	10,500		10,500	191,398
1958	1,706,699	10,500		10,500	10,500		10,500	201,898
1959	⁴ 1,767,419	10,500		10,500	10,500		10,500	212,398
1960	⁵ 1,691,577	10,500		10,500	10,500		10,500	222,898
1961	1,691,577	15,024	6,545	21,569	15,024	6,545	21,569	244,467
1962	1,691,577	15,024	3,159	18,183	15,024	3,159	18,183	262,650
1963	⁶ 1,667,960	15,024	4,692	19,716	15,024	4,692	19,716	282,366
1964	1,667,950	15,024	3,385	18,409	15,024	3,385	18,409	300,775
1965	1,667,950	15,023		15,023	15,023		15,023	315,798
1966	1,667,950	11,299	10,257	21,556	11,299	10,257	21,556	337,354
1967	⁷ 1,607,567	10,492	4,649	15,141	10,492	4,649	15,141	352,495
1968	1,607,567	11,172	16,281	27,453	11,172	16,281	27,453	379,948
1969	1,607,567	11,403	9,813	21,216	11,403	9,813	21,216	401,164
Total		407,068	—5,904	401,164	282,306	118,858	401,164	

¹ Deferments under Relief Act.² Recomputation of District's construction charge obligation to include \$346,500 for additional rehabilitation and betterment work and write-off charges on nonproductive land.³ Amendatory contract 14-06-W-9 canceled unpaid accruals in amount of \$45,158.⁴ Addition of Sherburne Rehabilitation and Betterment Contract, \$60,720.⁵ Reclassification of lands.⁶ Adjustment, Sherburne contract.⁷ Amendatory contract equalizing water rights.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—MALTA AND GLASGOW DIVISIONS

Fiscal year	Accruals	Collections
1927-----	\$18,600	\$10,959
1928-----	20,006	25,606
1929-----	27,800	26,016
1930-----	33,959	31,784
1931-----	34,195	34,209
1932-----	44,129	33,704
1933-----	30,493	26,398
1934-----	31,653	28,672
1935-----	29,374	34,191
1936-----	34,439	37,014
1937-----	42,555	35,579
1938-----	47,488	46,716
1939-----	46,007	43,118
1940-----	47,223	45,783
1941-----	42,544	41,824
1942-----	39,921	29,023
1943-----	33,962	46,990
1944-----	38,976	32,758
1945-----	39,257	25,212
1946-----	42,945	58,637
1947-----	60,993	59,469
1948-----	79,263	77,739
1949-----	71,955	70,431
1950-----	64,697	63,173
1951-----	78,727	78,727
1952-----	77,442	77,442
1953-----	76,884	76,884
1954 ¹ -----	11,274	11,274
	(37,429)	
1955-----	14,348	14,348
1956-----	12,567	12,567
1957-----	10,769	10,769
1958-----	11,283	11,283
1959-----	14,006	14,006
1960-----	12,937	12,937
1961-----	15,298	15,298
1962-----	14,453	14,453
1963-----	14,278	14,278
1964-----	16,591	16,591
1965-----	14,191	14,191
1966-----	20,140	20,140
1967-----	17,178	17,178
1968-----	19,215	19,215
1969-----	24,163	24,163
Total-----	1,440,749	1,440,749

¹ Operation and maintenance on everything but joint works was turned over to the districts in 1954. Assessments on Glasgow C-2 lands canceled.

CONTRACT SUMMARY

MAJOR REPAYMENT CONTRACTS

* St. Mary storage contracts:

Zurich Irrigation District.....July 2, 1931, Ilr-666
Fort Belknap Irrigation District..July 20, 1931, Ilr-667
Paradise Valley Irrigation
DistrictJuly 24, 1931, Ilr-665
Alfalfa Valley Irrigation
DistrictJuly 25, 1931, Ilr-664
Harlem Irrigation
DistrictAug. 5, 1931, Ilr-668

* Fresno Dam and Reservoir contracts:

Fort Belknap Irrigation District...Aug. 1, 1936, Ilr-909
Alfalfa Valley Irrigation
DistrictJune 6, 1942, Ilr-1381
Paradise Valley Irrigation
DistrictOct. 7, 1944, Ilr-665, Suppl. 1
Zurich Irrigation
DistrictJan. 24, 1945, Ilr-666, Suppl. 1
Harlem Irrigation District....Dec. 1, 1954, 14-06-W-75

* Dodson Pumping unit contract:

Proportionate share of existing works, including
Fresno Dam and project works..June 1, 1945, Ilr-1438
Glasgow District contract:

Original contractJuly 10, 1926, Ilr-1105

* Amendatory contractSept. 10, 1952, 14-06-W9
Malta District contract:

Original contractJuly 10, 1926, Ilr-73

* Amendatory contractSept. 10, 1952, 14-06-W8
Individuals, corporations and municipalities:

198 contractsSept. 29, 1936, to June 30, 1963

* Amended in 1967 to equalize water rights from St. Mary and Fresno water supply works and to adjust repayment obligation accordingly.

MUNICIPAL AND MISCELLANEOUS WATER CONTRACTS

Contracts have been executed with 198 individuals pumping from Milk River or project canals. Total value of these contracts is \$378,472, with \$189,588 matured at June 30, 1969. Contracts have also been executed with the Fort Belknap Indian Agency, the Department of Agriculture for the Lake Bowdoin Migratory Water Fowl Refuge, the Great Northern Railway Co., and two municipalities. These contracts total \$365,616, with total maturities of \$257,169.

Five water service contracts are in effect on the Milk River project.

WATER SERVICE CONTRACTS

1950, April 6: Water service contract with the City of Havre for 40 years. Maximum delivery in 1 year, 2,800 acre-feet at \$6 per acre-foot. Estimated annual income \$6,500; maximum annual income, \$16,800. Initial delivery of water November 28, 1951.

1962, July 23: Water service contract with the City of Harlem for 40 years. Maximum delivery in 1 year, 500 acre-feet at \$6 per acre-foot. Estimated annual income \$1,800; maximum annual income, \$3,000. Initial delivery of water December 1, 1962.

1966, February 18: Water service contract with Hill County Water District (6 towns and individuals) for 40 years. Maximum delivery in one year 600 acre-feet. Estimated annual income (400 acre-feet) \$2,700. Maximum annual income \$3,900. Initial delivery of water August 1, 1966.

1968, April 18: Water service contract with Sleeping Buffalo Recreation Association for 40 years. Maximum delivery 50 acre-feet a year. Annual income \$300. Initial delivery of water April 1968.

1968, November 5: Water service contract with Grand View Cemetery for 40 years. Maximum delivery 14 acre-feet a year. Annual income \$84. Initial delivery of water April 1969.

MISCELLANEOUS REPAYMENT CONTRACTS

Organization	Date	Obligation	Matured
Fort Belknap Indian Agency -----	Aug. 16, 1946 -----	\$269,616	\$180,769
Department of Agriculture -----	Mar. 19, 1937 -----	40,000	40,000
Great Northern Railway Co. -----	Oct. 21, 1936 -----	12,000	7,800
City of Chinook -----	Dec. 7, 1936 -----	28,000	18,200
City of Havre -----	Dec. 7, 1936 -----	16,000	10,400
198 individual pumpers -----	1936-1969 -----	378,472	189,588

REHABILITATION AND BETTERMENT CONTRACTS

Contract No.	Date	Contracting agency	Base amount	Payout period
Chinook Division:				
I79r-1310 -----	May 18, 1949 -----	Fort Belknap Irrigation District -----	\$2,526	1962-66
I79r-1323 -----	do -----	Alfalfa Valley Irrigation District -----	1,202	1962-66
I79r-1309 -----	do -----	Zurich Irrigation District -----	2,824	1962-66
I79r-1307 -----	do -----	Harlem Irrigation District -----	3,790	1962-66
I79r-1308 -----	do -----	Paradise Irrigation District -----	3,361	1962-66
11r-1572 -----	Aug. 19, 1952 -----	Ft. Belknap Irrigation District -----	22,332	1978-99
11r-1573 -----	July 18, 1952 -----	Alfalfa Valley Irrigation District -----	10,620	1978-88
11r-1571 -----	do -----	Zurich Irrigation District -----	24,973	1978-89
11r-1577 -----	Oct. 11, 1952 -----	Harlem Irrigation District -----	33,508	1978-91
11r-1576 -----	Aug. 2, 1952 -----	Paradise Valley Irrigation District -----	29,715	1978-92
14-06-600-7477 -----	Dec. 27, 1962 -----	Fort Belknap Irrigation District -----	15,777	1963-82
14-06-600-7475 -----	do -----	Alfalfa Valley Irrigation District -----	8,912	1963-82
14-06-600-7476 -----	do -----	Zurich Irrigation District -----	18,613	1963-82
14-06-600-7474 -----	do -----	Harlem Irrigation District -----	27,237	1963-82
14-06-600-7478 -----	Dec. 26, 1962 -----	Paradise Valley Irrigation District -----	20,255	1963-82
Total, Chinook Division:			225,645	
14-06-W8 -----	Sept. 10, 1952 -----	Malta Irrigation Division ¹ -----	378,650	-----
14-06-W9 -----	do -----	Glasgow Irrigation Division ¹ -----	346,500	-----
14-06-600-3747 -----	Oct. 17, 1958 -----	Malta Irrigation Division -----	87,625	1958-77
14-06-600-3746 -----	Oct. 9, 1958 -----	Glasgow Irrigation Division -----	37,093	1958-77
Total, rehabilitation and betterment -----			1,075,513	-----

¹ The amounts of \$378,650 for Malta and \$346,500 for Glasgow included in amendatory repayment contracts 14-06-W8, dated Sept. 10 1952, and 14-06-W9, dated Sept. 10, 1952, respectively.

STATEMENT OF COST AND REPAYMENT—MILK RIVER PROJECT AS OF JUNE 30, 1969

Item	Project total	IRRIGATION						Municipal and industrial	Malta streets
		Malta division	Glasgow division	Chinook division	Dodson division	Pumpers	Fort Belknap Indian Reservation			Nondistrict and other
Cost									
Plant, property and equipment:									
St. Mary water supply	\$3,322,242	\$607,803	\$257,548	\$532,970	\$14,379	\$151,242		\$1,758,300	
Fresno water supply	2,051,910	653,410	276,874	572,961	15,438	163,191		4,400	\$96,000
Irrigation plant	4,787,042	3,039,238	1,189,523	434,671	123,640				
Subtotal	10,161,191	4,300,451	1,723,945	1,540,572	153,477	314,433		1,762,700	96,000
Corollary costs:									
Investigations	40,061	7,859	2,638	1,084	29	307		28,124	
Transitional development	46,954	35,513	11,141						
Rehabilitation and betterment program	393,121	241,818	86,799	49,211	1,328	13,965			
Property transfers:									
Rehabilitation and betterment	16,770	8,806	7,964						
Subtotal	496,906	293,996	108,862	50,295	1,357	14,272		28,124	
Nonreimbursable	36,830							10,830	\$26,000
Total allocated	10,694,930	4,594,447	1,832,807	1,590,867	154,834	328,705		1,801,654	26,000
Other costs funded:									
Operation and maintenance	345,283	233,484	93,027	17,040	1,732				
Interest and penalties	14,698	339	88	14,271					
Subtotal	359,981	233,823	93,115	31,311	1,732				
Total costs	11,054,911	4,828,270	1,925,922	1,622,178	156,566	328,705		1,801,654	26,000
Repayment and other credits									
Repayments realized:									
Repayments from other sources	21,931							21,931	
Repayment contracts matured	2,634,298	1,027,737	401,164	744,789	13,850	189,589		4,400	76,400
Contributions for Kremlin Bridge	4,400								
Miscellaneous income	359,115	99,664	41,631	82,211	2,218	23,329		110,062	
Reserve for depreciation	719							719	
Subtotal	3,020,463	1,127,401	442,795	827,000	16,068	212,918		137,112	76,400
Anticipated repayment:									
Repayment contracts unamortured	4,677,620	2,325,037	1,206,403	795,178	53,672	188,883		3,364	19,600
Increase in reserve for depreciation	3,364								
Subtotal	4,680,984	2,325,037	1,206,403	795,178	53,672	188,883		3,364	19,600
Total repayments	7,701,447	3,452,438	1,649,198	1,622,178	69,740	401,801		140,476	96,000
Other credits:									
Provision for charge-offs	145,054							145,054	
Repayment reductions authorized	3,092,199	1,355,724	270,246	(10,056)	(29,640)			1,505,925	
Nonreimbursable plant deductions—CCC-WCU costs	123,468	20,108	6,478	96,882					
Nonreimbursable expense	36,830							10,830	26,000
Total, other credits	3,397,551	1,375,832	276,724		86,826	(29,640)		1,661,809	26,000
Total repayment and other credits	11,098,998	4,828,270	1,925,922	1,622,178	156,566	372,161		1,802,285	96,000
Surplus	44,087					1/ 43,456		631	

1. 1,294 acres remain to be renegotiated at reduced rate under water equalization plan.
CCC—Civilian Conservation Corps. WCU—Water Conservation and Utilization.

MINIDOKA PROJECT

IDAHO—WYOMING

The Minidoka project was authorized by the Secretary under the Reclamation Act of 1902 (32 Stat. 388) on April 23, 1904, and approved by the President on January 5, 1911, in accordance with the act of June 25, 1910 (36 Stat. 836). The Gooding division, originally called Gravity Extension unit, was found feasible by the Secretary on July 2, 1928, and approved by the President on July 3, 1928, pursuant to section 4 of the act of December 5, 1924 (43 Stat. 702).

The Upper Snake River division, originally called Upper Snake River Storage project, was found feasible by the Secretary on September 6, 1935, and approved by the President on September 20, 1935, pursuant to the acts referred to in the above paragraph.

The North Side Pumping division and the American Falls Powerplant were authorized by the act of September 30, 1950 (Public Law 864, 81st Cong.).

As initially developed, the facilities of the Minidoka project included Minidoka Dam, a combined

power production (present installed generating capacity, 13,400 kilowatts), storage, and diversion structure south of the railroad town of Minidoka, Idaho; Jackson Lake Dam and Reservoir, near the headwaters of the South Fork of the Snake River in northwestern Wyoming; and canal and lateral systems of the Gravity and South Side Pumping divisions in Cassia and Minidoka Counties, Idaho. Subsequent developments included the raising of Jackson Lake Dam (1913-16) to increase the storage capacity of Jackson Lake Reservoir to 847,000 acre-feet; the dredging of the river channel below the outlet of Jackson Lake; the construction of American Falls Dam (1921-25) with 1,700,000 acre-feet of storage space; construction of the Gooding Division (1927-48), Upper Snake division (1935-40), and the North Side Pumping division, which received its first appropriation in fiscal year 1952 and was completed in fiscal year 1965.

In 1969, the irrigable acreage for service, the irrigated area, gross crop value, and average value per irrigated acre for the project were as follows:

Division and district	Irrigable area for service (acres)	Irrigated area (acres)	Gross crop value (dollars)	Average value per irrigated acre (dollars)
Total-----	1,162,484	1,101,877	139,634,179	126.72
Gooding division:				
American Falls Reservoir District No. 2:				
Full supply-----	20,000	18,585	1,492,887	80.33
Supplemental supply-----	78,667	66,362	4,868,894	73.37
Gravity division:				
Minidoka Irrigation District, full supply-----	72,000	65,220	7,241,394	111.03
North Side Pumping division:				
A&B Irrigation District, full supply-----	76,796	72,151	11,607,881	160.88
South Side Pumping division:				
Burley Irrigation District, full supply-----	48,000	43,012	5,277,330	122.69
Upper Snake River Storage division:				
Fremont-Madison Irrigation District, supplemental supply-----	112,000	106,000	14,854,557	140.14
Other storage contractors:				
Supplemental supply-----	754,687	730,234	94,216,168	129.02
Leased and water rental lands:				
Temporary-----	334	313	75,068	239.83

Most of the power and energy generated on the project during the irrigation season is used for irrigation pumping. Power and energy in excess of that required for irrigation pumping and incidental uses is delivered to Bonneville Power Administration for marketing.

AMERICAN FALLS RESERVOIR DIVISION

This division consists of the American Falls Dam and Reservoir, which are operated as reserved works by the United States for the benefit of the Minidoka project. Operation and maintenance is financed 97 percent by funds advanced by the water users and 3 percent from appropriated funds.

Repayment contracts.—Thirty-two irrigation districts, companies, and individuals contracted to repay \$5,404,033 for the purchase of 1,223,620 acre-feet of the total of 1,700,000 acre-feet capacity of the reservoir. Repayment was completed in December 1968. In addition, the cost of 400,000 acre-feet of storage capacity in the reservoir has been contracted for by the Gooding division, and 47,593 acre-feet has been contracted for by the North Side Pumping division. The cost of 23,300 acre-feet of storage is under contract to the Falls Irrigation District (Michaud Flats project). The remaining 5,487 acre-feet is allotted to one company and two individuals, for which contracts are pending. A portion of the cost of American Falls Dam (\$293,978) is allocated to future power development.

AMERICAN FALLS RESERVOIR

ALLOCATION OF SPACE BY CONTRACTORS AND GROUPS OF CONTRACTORS

	<i>Acre-feet</i>
Twenty-five irrigation districts, companies, and individuals	735,321
Idaho Power Co.	45,000
Minidoka Irrigation District	50,000
American Falls Reservoir District No. 1	20,000
Aberdeen-Springfield Canal Co.	2,086
Enterprise Irrigation District	12,000
Rudy Irrigation Canal Co.	2,000
Twenty-two irrigation districts and companies	276,905
Milner Low Lift Irrigation District	11,574
Minidoka Irrigation District	33,563
Enterprise Irrigation District	4,071
Bureau of Indian Affairs (Fort Hall)	47,700
North Side Canal Co.	-16,600
Subtotal	1,223,620
American Falls Reservoir District No. 2 (Gooding division)	400,000
Fall Irrigation District (Michaud Flats project)....	23,300

A&B Irrigation District (North Side Pumping Division)	47,593
	1,694,513
Unsold space	5,487
	1,700,000

CONTRACTS

- 1922 to 1926: Twenty-six irrigation districts, companies, and individuals entered into contracts for 780,321 acre-feet of storage space. All except the Idaho Power Co. advanced a proportionate share of the estimated construction cost of the reservoir prior to and during the course of construction.
- 1927, February 11: Contract 11r-115 with Minidoka Irrigation District for 50,000 acre-feet of storage space, payable in 60 equal semiannual installments.
- 1927, September 21: Contract with American Falls Reservoir District No. 2 for 400,000 acre-feet of storage space, payable in 80 equal semiannual installments.
- 1931, June 30: Contract 11r-168 with American Falls Reservoir District No. 1 for 20,000 acre-feet of storage space, payable in 10 installments.
- 1932, May 5, and 1933, May 1: Contract 11r-258 with Aberdeen-Springfield Canal Co. for 2,086 acre-feet of storage space, payable at time of purchase.
- 1934, 1938, and 1942: Contracts with Enterprise Irrigation District for 12,000 acre-feet of storage space, payable at time of purchase.
- 1938, April 1: Contract 11r-659 with Rudy Irrigation Canal Co. for 2,000 acre-feet of storage space, payable at time of purchase.
- 1952, Twenty-two irrigation districts and companies contracted for 276,905 acre-feet of storage space pursuant to Public Law 864, 81st Congress, under a 10-year payment period.
- 1954, October 14: Contract 14-06-W-73 with American Falls Reservoir District No. 2 for repayment of Gooding division costs, including cost of 400,000 acre-feet of storage space in American Falls Reservoir. This contract supersedes the one dated September 21, 1927, with the District that covered repayment of storage space only.
- 1955, January 7: Contract 14-06-W-92 with Milner Low Lift Irrigation District for 11,574 acre-feet of storage space under Public Law 864, 81st Congress, payable in 10 equal installments.
- 1955, December 9: Contract with Falls Irrigation District for repayment of cost of Michaud Flats project, including cost of 23,300 acre-feet of storage space in American Falls Reservoir, over a repayment period of 50 years. Act of August 31, 1954 (68 Stat. 1062).
- 1957, April 25: Memorandum of agreement with Bureau of Indian Affairs (Fort Hall Indian Agency) for repayment of \$211,310 for 47,700 acre-feet of storage space in American Falls Reservoir. Repayment to be on nonappropriation cost transfer basis.
- 1960, February 2: Contract 14-06-100-1833 with the Minidoka Irrigation District for 33,563 acre-feet of storage space in American Falls Reservoir over a repayment period of 10 annual installments, beginning December 31, 1959.

Construction installments due December 31 of current year.

1960, June 2: Contract 14-06-100-1912 with the Enterprise Irrigation District for 4,071 acre-feet of storage space in American Falls Reservoir; charges were offset by credits from net leasing revenues.

1960, February 29: Contract 14-06-W-28 with North Side Canal Co., Limited. Amendatory and supplemental contract, covering among other things the relinquishment of 16,600 acre-feet of space in American Falls Reservoir.

1962, February 9: Contract 14-06-100-2368 with A&B Irrigation District for repayment of North Side Pumping division, including cost of 47,593 acre-feet of storage space in American Falls Reservoir.

Note: O&M payments are due April 1 of current year for all contracts.

Cost and repayment allocation:

Original construction costs	\$7,690,007
Construction cost financed from operation and maintenance funds	103,222
Subtotal	7,793,229

Interest and penalties funded	202,001
Operation and maintenance charges funded	9,000
Total	8,004,230
Less:	
Construction and miscellaneous revenues	108,530
Cost allocated to future power development	293,978
Construction costs repaid from operation and maintenance assessments	103,222
Subtotal	7,498,500
Less:	
Gooding division	1,771,990
North Side Pumping division	207,880
Michaud Flats project	103,218
Contracts pending (5,487 acre-feet)	23,966
Total	5,391,446

Status of American Falls Reservoir division repayment contracts:

Total value of contracted repayment	\$5,404,033
Total matured charges	5,404,033
Total matured charges repaid	5,404,033

CONSTRUCTION REPAYMENT HISTORY—AMERICAN FALLS RESERVOIR DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1924	\$4,562,782	\$33,607		\$33,607	\$33,607		\$33,607	\$33,607
1925	3,347,638	2,005,684		2,005,684	1,536,621		1,536,621	1,570,228
1926	3,190,331	919,407		919,407	953,014	\$405,776	1,358,790	2,929,018
1927	3,344,376	385,678		385,678	330,064		330,064	3,259,082
1928	3,344,376	0		0	0		0	3,259,082
1929	¹ 3,627,796	33,420		33,420	33,420	85,294	118,714	3,377,796
1930	3,588,379	² 3,575		² 3,575	² 3,575		² 3,575	3,374,221
1931	3,589,093	1,375		1,375	1,375		1,375	3,375,596
1932	3,710,979	³ 35,187	² \$714	34,473	35,187	² 714	34,473	3,410,069
1933	3,717,648	³ 36,768		36,768	36,778	² 9,270	27,508	3,437,577
1934	3,726,938	³ 12,493	² 9,260	3,233	12,493		12,493	3,450,070
1935	3,620,247	³ 45,723		45,723	45,723		45,723	3,495,793
1936	3,768,932	³ 7,664		7,664	6,969		6,969	3,502,762
1937	3,769,697	³ 15,328		15,328	3,034	695	3,729	3,506,491
1938	3,789,346	⁴ 34,978		34,978	20,128	12,294	32,422	3,538,913
1939	3,809,837	⁴ 32,528		32,528	17,467	9,409	26,876	3,565,789
1940	3,809,837	⁴ 15,328		15,328	9,732	9,260	18,992	3,584,781
1941	3,809,837	⁴ 15,328		15,328	9,487		9,487	3,594,268
1942	3,840,813	⁴ 41,882		41,882	37,043	22,679	59,722	3,653,990
1943	3,840,813	16,596		16,596	16,596	4,839	21,435	3,675,425
1944	3,840,813	17,161		17,161	6,068		6,068	3,681,493
1945	3,840,813	17,724		17,724	4,915	11,092	16,007	3,697,500
1946	3,840,813	9,144		9,144	3,034	12,810	15,844	3,713,344
1947	3,840,813	9,102		9,102	9,102	6,110	15,212	3,728,556
1948	3,840,813	6,068		6,068	6,068		6,068	3,734,624
1949	3,840,813	6,068		6,068	6,068		6,068	3,740,692
1950	3,840,813	6,068		6,068	6,068		6,068	3,746,760
1951	3,840,813	6,068		6,068	6,068		6,068	3,752,828
1952	3,840,813	6,068		6,068	6,068		6,068	3,758,896
1953	5,050,296	783,180		783,180	783,180		783,180	4,542,076

See footnotes at end of table.

CONSTRUCTION REPAYMENT HISTORY—AMERICAN FALLS RESERVOIR DIVISION—Continued

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1954-----	5,050,296	55,439	-----	55,439	55,439	-----	55,439	4,597,515
1955-----	5,100,850	90,793	-----	90,793	90,793	-----	90,793	4,688,308
1956-----	5,100,850	57,338	-----	57,338	57,338	-----	57,338	4,745,646
1957-----	5,312,160	79,625	-----	79,625	79,625	-----	79,625	4,825,271
1958-----	5,312,160	53,624	-----	53,624	53,624	-----	53,624	4,878,895
1959-----	5,312,160	53,624	-----	53,624	53,624	-----	53,624	4,932,519
1960-----	5,404,033	⁵ 306,777	-----	306,777	306,777	-----	306,777	5,239,296
1961-----	5,404,033	31,637	-----	31,637	31,637	-----	31,637	5,270,933
1962-----	5,404,033	47,409	-----	47,409	47,409	-----	47,409	5,318,342
1963-----	5,404,033	28,088	-----	28,088	28,088	-----	28,088	5,346,430
1964-----	5,404,033	22,242	-----	22,242	22,242	-----	22,242	5,368,672
1965-----	5,404,033	7,072	-----	7,072	7,072	-----	7,072	5,375,744
1966-----	5,404,033	7,086	-----	7,086	7,086	-----	7,086	5,382,830
1967-----	5,404,033	7,068	-----	7,068	7,068	-----	7,068	5,389,898
1968-----	5,404,033	7,068	-----	7,068	7,068	-----	7,068	5,396,966
1969-----	5,404,033	7,067	-----	7,067	7,067	-----	7,067	5,404,033
Total--	-----	5,414,007	-9,974	5,404,033	4,833,759	570,274	5,404,033	-----

¹ Increase in obligations covers sales of storage space to contractors.² Decrease. Decrease covers amounts deferred under relief acts.³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for years 1932, \$4,839; 1933, \$10,528; 1934, \$11,092; 1935, \$11,656; 1936, \$6,110.⁴ Charges deferred under acts of August 21, 1937, May 31, 1939, and August 4, 1939; for years 1937, \$23,783; 1938, \$23,783; 1939, \$23,783; 1940, \$23,783; and 1941, \$23,783.⁵ Nonappropriation transfer with Fort Hall Indian Agency (Michaud Flats) for \$211,309.79.

GOODING DIVISION

The American Falls Reservoir District No. 2 operates and maintains the irrigation system of the Gooding division, servicing about 98,700 irrigable acres. The United States operates the storage system as reserved works. Water for this division is diverted at Milner Dam into the Milner-Gooding Canal.

Repayment contracts.—The main contract between the United States and American Falls Reservoir District No. 2 was made September 21, 1927. This contract was modified by the interim amendatory contract of December 7, 1948, wherein provision was made to apportion the construction costs on the basis of water-supply benefits. The contract was further modified by amendatory contract of October 14, 1954. The contract of October 14, 1954, states the final repayment obligation of the District, including cost of 400,000 acre-feet of storage space in American Falls Reservoir, and the apportionment of this obligation between the "old and river-right" lands and the "new" lands of the division.

Repayment of the old and river-right lands obligation of the Gooding division was completed in fiscal year 1964. The new lands will pay out in fiscal year 2000.

Determination of repayment obligation of the Gooding division:

Total cost	\$6,608,381
Interest and penalties	1,989

Other charges funded	75,363
Total cost	6,685,733
Less: Construction revenues	61,508
Total repayment obligation	6,624,225

PUBLIC NOTICES AND CONTRACTS

- 1927, September 21: Contract with American Falls Reservoir District No. 2 for construction of the Gravity Extension unit of the Minidoka project.
- 1933, April 13: Public notice. Construction charges estimated at \$85 per acre, payable in 40 years.
- 1944, December 30: Public notice. Announcing repayment provision of "new lands" on estimated basis, and availability of water.
- 1947, March 11: Public notice. Announcing availability of water to new lands and 40-year repayment period on estimated cost of \$90 per acre.
- 1948, September 14: Public notice. Announcing availability of water to new lands and 40-year repayment period on estimated cost of \$115 per acre.
- 1948, December 7: Contract with American Falls Reservoir District No. 2 provided for apportionment of water and costs among various types of land and established a limitation as to new lands.
- 1954, October 14: Contract states final repayment obligation of the District including cost of 400,000 acre-feet of storage space in American Falls Reservoir, the apportionment of this obligation between old and river-right lands and new lands, and provisions for repayment. Construction installments due March 15 and June 30 of year following year for which installment accrues. O&M due April of current year.

Summary of status of repayment contracts:

Total value of contracted repayment	\$6,624,225
Total matured charges	5,528,222
Total matured charges repaid	5,528,222
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—GOODING DIVISION—AMERICAN FALLS RESERVOIR DISTRICT No. 2

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1929	\$7,723,500	\$140,000		\$140,000	\$140,000		\$140,000	\$140,000
1930	7,029,890	117,900		117,900	117,900		117,900	257,900
1931	7,051,570	¹ 21,680		21,680	21,680		21,680	279,580
1932	7,051,788	¹ 218		218	218		218	279,798
1933	7,051,788	¹ 0		0	0		0	279,798
1934	7,060,407	¹ 0		0	0		0	279,798
1935	7,062,069	¹ 1,662		1,662	1,662		1,662	281,460
1936	7,062,069	¹ 0		0	0		0	281,460
1937	7,055,439	¹ 0		0	0		0	281,460
1938	7,055,439	¹ 88,342		88,342	88,342		88,342	369,802
1939	7,055,439	¹ 176,685		176,685	105,916		105,916	475,718
1940	7,055,439	¹ 0		0	0	\$70,769	70,769	546,487
1941	7,055,439	¹ 88,343		88,343	88,343		88,343	634,830
1942	7,055,439	¹ 176,685		176,685	146,176		146,176	781,006
1943	7,055,439	112,125	³ \$23,784	88,341	88,342	30,508	118,850	899,856
1944	7,055,439	176,685		176,685	176,685		176,685	1,076,541
1945	² 6,865,439	201,220		201,220	201,220		201,220	1,277,761
1946	6,865,439	201,220		201,220	201,220		201,220	1,478,981
1947	6,865,439	265,778		265,778	201,220		201,220	1,680,201
1948	6,865,439	225,004		225,004	225,003	64,559	289,562	1,969,763
1949	6,865,439	201,220	³ 9,023	192,197	201,220	³ 9,023	192,197	2,161,960
1950	6,865,439	210,420		210,420	210,420		210,420	2,372,380
1951	6,865,439	210,420		210,420	192,078		192,078	2,564,458
1952	6,865,439	210,420		210,420	210,420	18,342	228,762	2,793,220
1953	6,865,439	255,586		255,586	187,142		187,142	2,980,362
1954	6,865,439	167,544		167,544	162,529	68,444	230,973	3,211,335
1955	² 6,623,871	197,580	60,138	257,718	197,580	65,153	262,733	3,474,068
1956	6,623,871	197,580		197,580	197,580		197,580	3,671,648
1957	6,623,871	197,580	⁴ 1,425	196,155	197,580	⁴ 1,425	196,155	3,867,803
1958	⁵ 6,624,225	197,580		197,580	197,580		197,580	4,065,383
1959	6,624,225	197,580		197,580	197,580		197,580	4,262,963
1960	6,624,225	212,380		212,380	212,380		212,380	4,475,343
1961	6,624,225	212,380		212,380	212,380		212,380	4,687,723
1962	6,624,225	212,380		212,380	212,380		212,380	4,900,103
1963	6,624,225	212,380		212,380	212,380		212,380	5,112,483
1964	6,624,225	194,139		194,139	194,139		194,139	5,306,622
1965	6,624,225	44,320		44,320	44,320		44,320	5,350,942
1966	6,624,225	44,320		44,320	44,320		44,320	5,395,262
1967	6,624,225	44,320		44,320	44,320		44,320	5,439,582
1968	6,624,225	44,320		44,320	44,320		44,320	5,483,902
1969	6,624,225	44,320		44,320	44,320		44,320	5,528,222
Total		5,502,316	25,906	5,528,222	5,220,895	307,327	5,528,222	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$90,332; 1933, \$176,685; 1934, \$176,685; 1935, \$176,685; 1936, \$88,342. Deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939; for years 1937, \$88,342; 1938, \$88,342; 1939, \$88,342; 1940, \$88,342; 1941, \$88,342.

² Adjustment in obligation covers decrease in estimated cost.

³ Decrease covers amounts deferred under relief acts.

⁴ Decrease covers amount transferred to North Side Pumping division.

⁵ Increase covers final construction costs of division as per notice dated April 28, 1958, from Regional Director.

GRAVITY DIVISION

The Gravity division covers 72,000 acres of irrigable lands in the Minidoka Irrigation District located on the north side of the Snake River. The individual water users have contracted to repay the construction cost. Repayments commenced in 1908. A joint obligation contract was executed with the Minidoka Irrigation District on March 17, 1964. This contract, among other considerations, provided for the District to assume the unretired individual water right contracts and reduced the contracted obligation to \$2,809,960, or the actual cost of the Gravity division works.

The irrigation system has been operated by the Minidoka Irrigation District since 1916, and the reserved works of the Minidoka project, comprising storage reservoirs, are operated by the United States.

Repayment contracts.—Repayment contracts on the Gravity division are with the individual water-users based on the repayment provisions of the public notices. There were originally about 2,000 of these individual contracts. Construction installments are due December 1 of current year. These contracts generally provide for a 20-year payout period of a \$42 per acre construction charge. The unmatured individual contracts became an obligation of the Minidoka Irrigation District upon execution of the joint obligation contract.

PUBLIC NOTICES AND CONTRACTS

1907, March 9: Public notice. Construction charge \$22 per acre, payable in 10 equal annual installments.

- 1909, March 30: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1910, November 25: Public notice. Construction charge \$40 per acre on private and school lands, payable in 10 equal annual installments.
- 1911, December 30: Public notice. Construction charge increased to \$30 for all lands and installments graduated. Private land applied for after 1 year, rate \$40 per acre.
- 1916, October 2: Public notice. Supplemental construction of drainage works rate, \$12 per irrigable acre, payable along with regular construction charges.
- 1916, December 2: Contract with Minidoka Irrigation District for taking over operation and maintenance of irrigation system.
- 1927, February 11: Contract 11r-115 with Minidoka Irrigation District for purchase of 50,000 acre-feet of American Falls storage space, 7,000 acre-feet of Jackson Lake storage space, allowance of power credits, and other benefits.
- 1929, March 19: Contract with Minidoka Irrigation District for purchase of additional 810 acre-feet of Jackson Lake storage space, to be paid from power profits.
- 1932, May 21: Supplemental to contract of December 2, 1916, reducing interest rate from 10 to 6 percent.
- 1936, March 2: Supplemental to contract of February 11, 1927, extending repayment period from 10 to 60 years.
- 1964, March 17: Contract 14-06-100-4096 with Minidoka Irrigation District for District to assume unretired individual water right accounts and reduce District's obligation to United States to actual cost of Gravity division.

Status of the Gravity division repayment contracts:

Total value of contracted repayment	\$2,809,960
Total matured charges	2,809,960
Total matured charges repaid	2,809,960

CONSTRUCTION REPAYMENT HISTORY—GRAVITY DIVISION—MINIDOKA IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$135,546		\$135,546	\$3,149		\$ 3,149	\$3,149
1909		132,535		132,535			127,716	130,865
1910		132,470		132,470	383,551		135,645	266,510
1911		138,055		138,055			120,190	386,700
1912		85,965	¹ \$362,120	² 276,155	41,788	¹ \$212,030	¹ 170,242	216,458
1913		100,312	¹ 30,784	69,528	63,244	13,387	76,631	293,089
1914		119,154	¹ 53,399	65,755	75,987	¹ 22,485	53,502	346,591
1915	\$1,899,682	38,089	49,177	87,266	25,558	96,797	122,355	468,946
1916		32,002	¹ 7,988	24,014	22,901	7,956	30,857	499,803
1917	2,735,362			117,564			116,531	616,334
1918	2,823,708			¹ 21,782			52,324	668,658
1919	2,862,531			89,212			84,057	752,715
1920	2,878,974			83,459			87,773	840,488
1921	2,880,068	1,009,006		127,327	798,031		78,710	919,198
1922	2,879,419			208,917			106,791	1,025,989
1923	2,862,311			136,432			101,052	1,127,041
1924	2,857,766			132,789			108,507	1,235,548
1925	2,856,884			135,088			62,289	1,297,837
1926	2,854,868	134,853	¹ 281	134,572	56,113	96,429	152,542	1,450,379
1927	2,854,868	136,181	4	136,185	56,039	90,102	146,141	1,596,520
1928	2,854,868	202,801	¹ 10,091	192,710	141,729	152,744	294,473	1,890,993
1929	2,789,045	121,724	¹ 32,230	89,494	66,587	29,741	96,328	1,987,321
1930	2,703,415	117,723	¹ 52,201	65,522	68,710	26,503	95,213	2,082,534
1931	2,701,467	117,710	3,526	121,236	62,802	44,365	107,167	2,189,701
1932	2,704,639	² 116,770	¹ 12,633	104,137	31,161	7,336	38,497	2,228,198
1933	2,724,994	² 74,375	¹ 119,811	¹ 45,436	23,864	2,298	26,162	2,254,360
1934	2,739,999	² 29,161	¹ 50,767	¹ 21,606	19,198	4,806	24,004	2,278,364
1935	2,739,999	² 8,815	¹ 1,014	7,801	6,219	251	6,470	2,284,834
1936	2,754,717	² 27,154	¹ 12,554	14,600	9,345	1,233	10,578	2,295,412
1937	2,754,457	² 75,260	¹ 18,649	56,611	52,531	2,256	54,787	2,350,199
1938	2,760,958	111,725	¹ 4,272	107,453	61,832	17,612	79,444	2,249,643
1939	2,778,649	95,134	¹ 3,979	91,155	42,232	45,468	87,700	2,517,343
1940	2,797,079	66,281	19	66,300	28,943	51,512	80,455	2,597,798
1941	2,809,554	28,776	368	29,144	13,448	38,693	52,141	2,649,939
1942	2,811,685	18,566	¹ 2,377	16,189	11,576	13,090	24,666	2,674,605
1943	2,815,071	13,383	194	13,577	9,534	8,528	18,062	2,692,667
1944	2,836,029	14,447	821	15,268	12,513	4,642	17,155	2,709,822
1945	2,846,206	14,656	¹ 2,067	12,589	12,713	¹ 137	12,576	2,722,398
1946	2,846,206	13,018	¹ 959	12,059	11,400	1,476	12,876	2,735,274
1947	2,850,143	9,289	1,676	10,965	8,669	2,063	10,732	2,746,006
1948	2,851,788	9,108		9,108	4,958	3,799	8,757	2,754,763
1949	2,850,871	12,406	¹ 1,202	11,204	7,135	4,155	11,290	2,766,053
1950	2,850,205	8,486	¹ 558	7,928	6,451	1,335	7,786	2,773,839
1951	2,849,455	8,779	¹ 1,765	7,014	6,381	1,200	7,581	2,781,420
1952	2,849,656	8,070		8,070	6,535	1,991	8,526	2,789,946
1953	2,849,656	6,249		6,249	4,839	1,440	6,279	2,796,225
1954	2,849,793	6,202		6,202	5,073	1,893	6,966	2,803,191
1955	2,846,896	5,134	¹ 2,079	3,055	4,198	¹ 949	3,249	2,806,440
1956	2,846,896	4,852		4,852	3,884	689	4,573	2,811,013
1957	2,846,896	4,047		4,047	4,047	169	4,216	2,815,229
1958	2,846,896	3,048		3,048	1,819	657	2,476	2,817,705
1959	2,846,896	2,761		2,761	1,688	1,463	3,151	2,820,856
1960	2,846,896	2,415		2,415	1,353	782	2,135	2,822,991
1961	³ 2,825,516	2,054	-10,807	-8,753	1,306	⁴ -9,777	-8,471	2,814,520
1962	⁵ 2,826,810	2,143		2,143	938	659	1,597	2,816,117
1963	2,826,810	1,976		1,976	996	1,325	2,321	2,818,438
1964	⁶ 2,809,960		-9,904	-9,904		-8,478	-8,478	2,809,960
Total		3,558,666	-748,706	2,809,960	2,282,971	526,989	2,809,960	

¹ Decreases are due to cancellation of water-right applications and to funding of delinquent charges. 1912, adjustment under 1911 public notice. 1914 Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount deferred calendar years 1931 to 1936, \$383,797.

³ Decrease due to reclassification of class 5 lands to be permanently unproductive.

⁴ Includes refund of collections to owners of reclassified lands.

⁵ Increase of construction obligation for 19.91 acres of Special (townsite) lands at \$65 per acre.

⁶ Reduced to actual Gravity division costs.

JACKSON LAKE RESERVOIR

Nineteen irrigation districts, canal companies, and individuals have contracted to repay a total of \$1,254,433 of the costs of Jackson Lake Reservoir. All of this amount had become due by June 30, 1946, and had been paid to the United States. A large portion of the \$1,415,327 total cost of Jackson Lake Dam was advanced by the Twin Falls Canal Co. and the Kuhn Irrigation and Canal Co. prior to construction.

The United States retains title and operates Jackson Lake Dam and Reservoir, as well as American Falls Reservoir, as storage and control facilities on the Snake River for the benefit of project lands. Operation and maintenance is financed from advanced funds.

CONTRACTS

1913-1917: 17 irrigation districts, canal companies, and individuals entered into contracts for 511,190 acre-feet of

storage space, cost payable in 10 equal annual installments, or less. Two contractors later secured extension to 20 years.

1926, March 25: Contract with Burley Irrigation District for 50,000 acre-feet of storage space, payable from power profits.

1927, February 11: Contract with Minidoka Irrigation District for 7,810 acre-feet of storage space, payable from power profits.

Summary of status of Jackson Lake Reservoir repayment contracts:

Total value of contracted repayment	\$1,254,433
Total matured charges	1,254,433
Total matured charge repaid	1,254,433

The contracts for the repayment of cost of Jackson Lake include those for sale of 102,000 acre-feet originally reserved for North Side Pumping division.

CONSTRUCTION REPAYMENT HISTORY—JACKSON LAKE RESERVOIR

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$429,413	\$69,518		\$69,518			\$69,518	\$69,518
1919	429,413	33,157		33,157			33,157	102,675
1920	429,413	33,158		33,158			33,158	135,833
1921	429,413	33,157		33,157	\$300,436		30,485	166,318
1922	429,413	33,157		33,157			33,713	200,031
1923	429,413	33,158		33,158			30,804	230,835
1924	429,413	33,157		33,157			37,628	268,463
1925	429,413	33,158		33,158			31,973	300,436
1926	429,413	39,998		39,998		\$1,186	40,992	341,428
1927	429,413	26,317		26,317	39,806	191	25,826	367,254
1928	429,413	6,148		6,148	25,635	645	6,420	373,674
1929	429,413	6,148		6,148	5,775	410	6,231	379,905
1930	473,926	6,148		6,148	5,821	326	6,474	386,379
1931	473,926	6,148		6,148	6,148		6,148	392,527
1932	473,926	¹ 50,661		50,661	6,148		46,536	439,063
1933	473,926	¹ 1,288	² \$4,125	² 2,837	46,536		915	439,978
1934	473,926	¹ 2,023		2,023	915		2,396	442,374
1935	474,346	¹ 6,148		6,148	2,023	373	2,023	444,397
1936	475,232	¹ 2,022	² 4,125	² 2,103	2,023		2,022	446,419
1937	474,366	¹ 6,148		6,148	2,022		2,023	448,442
1938	474,371	5,134	² 2,062	3,072	2,023		2,814	451,256
1939	474,371	4,259		4,259	752	2,062	4,383	455,639
1940	474,371	4,135	² 4,259	² 124		4,383	4,135	459,774
1941	474,371	1,000		1,000	4,135		1,000	460,774
1942	474,371	3,000		3,000	1,000		3,000	463,774
1943	474,371	3,000		3,000	3,000		3,000	466,774
1944	474,371	3,000		3,000	3,000		3,000	469,774
1945	474,371	3,000		3,000	3,000		3,000	472,774
1946	474,371	1,597		1,597	1,597		1,597	474,371
1957 ³	³ 1,254,433		³ 780,062	780,062		780,062	780,062	1,254,433
Total		488,942	765,491	1,254,433	464,795	789,638	1,254,433	

¹ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$4,383; 1932, \$5,011; 1933, \$4,135; 1934, \$4,135; 1935, \$4,135; and 1936, \$2,068.

² Decrease covers amounts deferred under relief acts.

³ Increase covers payments made by Kuhn Irrigation District under contract H-494, dated Feb. 25, 1913, that has been accounted for as a contribution until fiscal year 1957.

NORTH SIDE PUMPING DIVISION

The North Side pumping division is located in Minidoka and Jerome Counties, north of the Snake River in southcentral Idaho. The division was authorized for construction by act of September 30, 1950 (64 Stat. 1083). The project plan included the construction of facilities to irrigate 67,100 acres of public land by ground water pumping and facilities to pump from the Snake River to 13,650 acres, for which 47,593 acre-feet of storage space in American Falls Reservoir, and 90,800 acre-feet of storage space in Palisades Reservoir have been included in contract with A&B Irrigation District. Currently water is available for 14,522 acres from Unit A pumping plant and 62,274 acres from deep wells.

Repayment contracts.—The total cost of the division is estimated to be \$12,598,498, including \$207,880 transferred from American Falls Reservoir and \$703,700 transferred from Palisades Reservoir for storage space. Contract 14-06-100-2368 was executed February 9, 1962 with the A&B Irrigation District for the repayment of construction charges in amount of \$12,598,498. Eight irrigation blocks have been established for the division. The development periods are 8 years for block 1 and 10 years for blocks 2 through 8. The initial year of the development period for each block is as follows:

Block	Year	Block	Year
1	1954	5	1957
2	1954	6	1958
3	1955	7	1959
4	1956	8	1962

The District's general repayment obligation will be allocated to each block on the basis of a ratio of the irrigable acreage in each block to the total irrigable acreage in the division. The basic annual installment for each block shall be determined as follows:

(a) First 5 annual installments by multiplying the irrigable acreage established for the block by \$1 per acre.

(b) Next 5 annual installments by multiplying the irrigable acreage established for the block by \$1.75 per acre.

(c) Next 5 annual installments by multiplying the irrigable acreage established for the block by \$2.50 per acre.

(d) Remaining 35 annual installments by dividing the allocation of the repayment obligation to the block remaining unpaid after the fifteenth installment by 35 years.

Upon a resolution by the District, the basic annual installment may be adjusted by application of a normal and percentage plus parity variable repayment formula.

PUBLIC NOTICES AND CONTRACTS

Recordable and interim repayment contract—each homestead entryman is required to execute a contract providing for payment of operation and maintenance charges in advance, a 50-year repayment period for construction charges, and agreement to form and become a party to an irrigation district to operate the irrigation system.

1953, April 6: Public notice No. 44 announcing availability of water to 7,289 acres and opening these lands to homestead entry.

1954, March 5: Public notice No. 45 announcing availability of water to 8,894.3 acres and opening these lands to homestead entry.

1955, February 7: Public notice No. 46 announcing the availability of water to 10,467.5 acres of public lands and opening these lands to entry.

1956, January 19: Public notice No. 47 announcing the availability of water to 23,913.0 acres and opening these lands to homestead entry.

1957, March 15: Public notice No. 48 announcing the availability of water to 18,857.7 acres and opening these lands to homestead entry.

1958, April 3: Public notice No. 49 announcing the availability of water to 5,135.8 acres and opening these lands to homestead entry.

1961, April 21: Public notice No. 50 announcing the availability of water to 1,854.3 acres and opening these lands to homestead entry.

1962, February 9: Contract 14-06-100-2368 with A&B Irrigation District covering total cost of \$12,598,498, to be repaid in 50 installments for each block. Construction charges payable one-half on March 15 and one-half on June 30 of year following year for which installment is due. O&M payments due April 15 and June 30.

Status of the North Side Pumping Division repayment contract:

Total value of contracted repayments	\$12,598,498
Total matured charges	199,370
Total matured charges repaid	199,370
Total matured charges unpaid	0

This contract does not include completed repayment of costs of storage in Jackson Lake (\$429,858).

CONSTRUCTION REPAYMENT HISTORY—NORTH SIDE PUMPING DIVISION—A&B IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1963-----	\$12,598,498	\$5,324	-----	\$5,324	\$5,324	-----	\$5,324	\$5,324
1964-----	12,598,498	5,324	-----	5,324	5,324	-----	5,324	10,648
1965-----	12,598,498	7,619	-----	7,619	7,619	-----	7,619	18,267
1966-----	12,598,498	25,324	-----	25,324	25,324	-----	25,324	43,591
1967-----	12,598,498	27,050	-----	27,050	27,050	-----	27,050	70,641
1968-----	12,598,498	54,928	-----	54,928	54,928	-----	54,928	125,569
1969-----	12,598,498	73,801	-----	73,801	73,801	-----	73,801	199,370
Total--	-----	199,370	-----	199,370	199,370	-----	199,370	-----

SOUTH SIDE PUMPING DIVISION

Distribution facilities, including pump lifts, to serve 48,000 irrigable acres have been operated by the Burley Irrigation District since 1926. Storage and power facilities are operated by the United States as reserved works. Operation and maintenance of the reserved works is financed from funds advanced by the irrigation district. Much of the repayment obligation of the District has been met from power revenues distributed from the Minidoka Powerplant.

Repayment contracts.—The Burley Irrigation District assumed a contract obligation of \$3,056,119 for construction of the South Side Pumping division, on the south side of the Snake River. In 1954, accumulated credits of power revenues were applied in sufficient amount to discharge the remaining unpaid obligation of the District's construction cost.

PUBLIC NOTICE AND CONTRACT

1915, November 3: Public notice. Construction charge \$56.50 and \$57.50 per acre, payable in 20 graduated annual installments.

1926, March 15: Contract IIr-392 with Burley Irrigation District, under which the District assumed obligations under individual water-right applications. Delinquent charges and penalties funded. Repayment to be on crop production basis, annual payment 5 percent of gross average acre income for preceding 10 years.

Summary of status of the South Side Pumping division repayment contract:

Total value of contracted repayment	\$3,056,119
Total matured charges	3,056,119
Total matured charges repaid	3,056,119

CONSTRUCTION REPAYMENT HISTORY—SOUTH SIDE PUMPING DIVISION—BURLEY IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1916		\$4,249		\$4,249	\$4,249		\$4,249	\$4,249
1917	\$2,704,557	57,118		57,118	55,736		55,736	59,985
1918	2,727,526	49,730		49,730	44,663		44,663	104,648
1919	2,752,009	53,187		53,187	52,837		52,837	157,485
1920	2,760,547			50,135			50,708	208,193
1921	2,767,475			97,407			38,520	246,713
1922	2,767,159	728,789		108,793	370,404		77,989	324,702
1923	2,747,341			158,127			73,820	398,522
1924	2,747,341			153,019			98,120	496,642
1925	2,750,884			161,308			31,247	527,889
1926	2,756,970	162,822	\$39	162,861	39,352	\$32,328	71,680	599,569
1927	¹ 3,082,770	112,631	² 452,325	² 339,694	74,629	3,986	78,615	678,184
1928	3,082,770	112,529	² 237	112,292	112,529	37,819	150,348	828,532
1929	3,082,770	108,126		108,126	82,314		82,314	910,846
1930	3,082,110	105,983	² 121	105,862	105,862	25,812	131,674	1,042,520
1931	3,087,052	59,105		59,105	59,105		59,105	1,101,625
1932	3,080,139	100,602		100,602	100,602		100,602	1,202,227
1933	3,080,139	97,393		97,393	97,394		97,394	1,299,621
1934	3,080,139	90,997		90,997	90,997		90,997	1,390,618
1935	3,075,139	85,581		85,581	85,581		85,581	1,476,199
1936	3,075,139	83,533		83,533	83,533		83,533	1,559,732
1937	3,075,139	64,291		64,291	64,291		64,291	1,624,023
1938	3,075,139	61,823		61,823	37,409		37,409	1,661,432
1939	3,075,139	62,877		62,877	1,931		1,931	1,663,363
1940	3,075,139	63,924		63,924	63	30,856	30,919	1,694,282
1941	3,075,139	62,855		62,855	14		14	1,694,296
1942	3,075,139	62,855		62,855	62,855	181,206	244,061	1,938,357
1943	3,075,139	67,419		67,419	67,419		67,419	2,005,776
1944	3,075,139	78,438		78,438	32,413		32,413	2,038,189
1945	3,075,139	91,594		91,594	21,489		21,489	2,059,678
1946	3,075,139	99,180		99,180	99,180	116,129	215,309	2,274,987
1947	3,075,139	108,068	50,565	158,633	108,068	50,565	158,633	2,433,620
1948	3,075,139	111,219		111,219	111,219		111,219	2,544,839
1949	3,056,119	103,516	³ -6,196	97,320	103,516	³ -6,196	97,320	2,642,159
1950	3,056,119	103,887		103,887	103,887		103,887	2,746,046
1951	3,056,119	96,255		96,255	96,255		96,255	2,842,301
1952	3,056,119	84,937		84,937	84,937		84,937	2,927,238
1953	3,056,119	63,509		63,509	63,509		63,509	2,990,747
1954	3,056,119	40,445		40,445	40,445		40,445	3,031,192
1955	3,056,119	24,927		24,927	24,927		24,927	3,056,119
Total		3,464,394	-408,275	3,056,119	2,583,614	472,505	3,056,119	

¹ Increase in obligation due to funding of delinquent operation and maintenance charges and penalties.

² Decreases due to funding of delinquent charges under 1926 contract.

³ Adjustment of obligation and distribution of credits.

UPPER SNAKE RIVER STORAGE DIVISION

The United States operates the reserved works, i.e., storage reservoirs, and the Fremont-Madison Irrigation District operates the distribution system which was built with private funds and serves 112,000 irrigable acres. The District advances funds for Government operation of the reservoirs. Construction was authorized under the provisions of the Warren Act of 1911 (36 Stat. 925) by a finding of feasibility dated September 6, 1935, which was approved by the President on September 20, 1935.

Repayment contracts.—In 1935, the Fremont-Madison Irrigation District contracted with the United States to pay for the construction of Island Park and Grassy Lake Dams and Reservoirs on the Upper Snake River in Idaho and Wyoming, respectively. Repayments under the contract commenced in 1940. The total construction obligation is \$2,702,417, and as of June 30, 1969, a total of \$2,032,281, or 75 percent, had been paid. The District is current in its payments.

PUBLIC NOTICE AND CONTRACT

1935, July 15: Contract with Fremont-Madison Irrigation Dis-

REPAYMENT OF RECLAMATION PROJECTS

tract. Contract covers construction of Island Park and Grassy Lake Reservoirs. Payment to be made in 40 equal annual installments. Installments due December 31, payable one-half December 31 and one-half July 1 of following year. O&M due April 1 of current year.

1950, September 19: Final cost notice to Fremont-Madison Irrigation District, \$2,702,417.

Summary of status of Upper Snake River Storage repayment contract:

Total value of contracted repayment	\$2,702,417
Total matured charges	2,032,281
Total matured charges repaid	2,032,281
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—UPPER SNAKE RIVER STORAGE DIVISION—
FREMONT-MADISON IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1936	\$3,000,000							
1937	3,000,000							
1938	3,000,000							
1939	3,000,000							
1940	3,000,000	\$35,750		\$35,750				
1941	3,000,000	69,000	¹ \$49,550	19,450	\$35,842		\$35,842	\$35,842
1942	3,000,000	73,830		73,830	36,908	\$19,358	56,266	92,108
1943	3,000,000	73,852		73,852	64,931	36,922	101,853	193,961
1944	3,000,000	73,830		73,830	73,830	8,921	82,751	276,712
1945	² 2,760,000	73,830		73,830	73,830		73,830	350,542
1946	2,760,000	73,830		73,830	73,830		73,830	424,372
1947	2,760,000	73,830	36,915	110,745	73,830	36,915	110,745	535,117
1948	2,760,000	73,830		73,830	73,830		73,830	608,947
1949	2,760,000	73,830		73,830	73,830		73,830	682,777
1950	2,760,000	73,830		73,830	73,830		73,830	756,607
1951	² 2,702,417	69,429		69,429	69,429		69,429	826,036
1952	2,702,417	67,014		67,014	67,014		67,014	893,050
1953	2,702,417	67,013		67,013	67,013		67,013	960,063
1954	2,702,417	67,014		67,014	67,014		67,014	1,027,077
1955	2,702,417	67,013		67,013	67,013		67,013	1,094,090
1956	2,702,417	67,014		67,014	67,014		67,014	1,161,104
1957	2,702,417	67,014		67,014	67,014		67,014	1,228,118
1958	2,702,417	67,014		67,014	67,014		67,014	1,295,132
1959	2,702,417	67,014		67,014	67,014		67,014	1,362,146
1960	2,702,417	67,014		67,014	67,014		67,014	1,429,160
1961	2,702,417	67,013		67,013	67,013		67,013	1,496,173
1962	2,702,417	67,014		67,014	67,014		67,014	1,563,187
1963	2,702,417	67,013		67,013	67,013		67,013	1,630,200
1964	2,702,417	67,013		67,013	67,013		67,013	1,697,213
1965	2,702,417	67,013		67,013	67,013		67,013	1,764,226
1966	2,702,417	67,014		67,014	67,014		67,014	1,831,240
1967	2,702,417	67,014		67,014	67,014		67,014	1,898,254
1968	2,702,417	67,014		67,014	67,014		67,014	1,965,268
1969	2,702,417	67,013		67,013	67,013		67,013	2,032,281
Total		2,044,916	-12,635	2,032,281	1,930,165	102,116	2,032,281	

¹ Decrease. Part of construction charges for calendar year 1939, \$48,300, deferred under act of Aug. 4, 1939.

² Adjustment of obligation covers reduction in estimated cost of construction.

REPAYMENT CONTRACT SUMMARY—MINIDOKA PROJECT

Division	Construction obligation	Funded charges	Total repayment obligation
Existing contracts:			
Upper Snake River Storage-----	\$2,695,685	\$ 6,733	\$2,702,418
Gooding -----	6,546,872	77,353	6,624,225
American Falls Reservoir-----	5,202,032	202,001	5,404,033
Gravity -----	2,784,304	25,656	2,809,960
Jackson Lake -----	1,253,988	445	1,254,433
South Side Pumping-----	2,708,528	347,591	3,056,119
North Side Pumping-----	12,409,495	189,003	12,598,498
Total -----	33,600,904	848,782	34,449,686
Charges included in construction-----	- 339,354	339,354	-----
Total repayment contracts-----	33,261,550	1,188,136	34,449,686
Pending contracts:			
American Falls Reservoir-----	23,966	-----	23,966
Total -----	33,285,516	1,188,136	34,473,652

MINIDOKA PROJECT—SUMMARY OF COST AND REPAYMENT ALLOCATION

	Irrigation	Power	Recreation	Total
Plant property and equipment:				
Gravity division	\$2,959,826			\$2,959,826
South Side Pumping division	2,971,948			2,971,948
Jackson Lake division	990,515			990,515
American Falls division	5,428,280	\$293,978		5,722,258
Upper Snake River Storage division	2,712,517			2,712,517
Gooding division	6,648,921			6,648,921
North Side Pumping division	12,326,190			12,326,190
Minidoka Powerplant and transmission		2,615,716	\$27,978	2,643,694
Other projects—Michaud Flats project	103,218			103,218
Subtotal	34,141,415	2,909,694	27,978	37,079,087
Transitional development costs:				
Lines transferred to BPA		1,787,540		1,787,540
North Side Pumping division	52,530			52,530
Corollary costs	200,453	56,980		257,433
Total cost allocated	34,394,398	4,754,214	27,978	39,176,590
Cost from other projects—Palisades Dam	703,700			703,700
Funded charges	999,367			999,367
Total subject to repayment	36,097,465	4,754,214	27,978	40,879,657
Reimbursable:				
Assumed by Michaud Flats project	103,218			103,218
Repayment contracts:				
Gravity division	2,809,960			2,809,960
South Side Pumping division	3,056,119			3,056,119
Jackson Lake division	824,575			824,575
American Falls division	5,404,033			5,404,033
Upper Snake River Storage division	2,702,418			2,702,418
Gooding division	6,624,225			6,624,225
North Side Pumping division	13,028,356			13,028,356
Future contracts	64,506			64,506
Subtotal	34,514,192			34,514,192
Depreciation—Realized and anticipated	129,396	1,613,708		1,743,104
Other repayments realized and contributions:				
Gravity division	92,053			92,053
South Side Pumping division	562,768			562,768
Jackson Lake division	114,234			114,234
American Falls division	206,590			206,590
Upper Snake River Storage division	16,854			16,854
Gooding division	61,508			61,508
North Side Pumping division	529,891			529,891
Contributions	276	2,533		2,809
Subtotal	1,584,174	2,533		1,586,707
Power revenues realized		1,617,701		1,617,701
Anticipated power revenues		748,921		748,921
Lines transferred to BPA for repayment		420,393		420,393
Anticipated American Falls power revenues		350,958		350,958
Nonreimbursable:				
Walcott Park CCC funds			27,978	27,978
Clearing Jackson Lake NPS funds	50,000			50,000
Exchange of lieu farm units	11,684			11,684
Repayment deductions authorized:				
Gravity division	21,380			21,380
South Side Pumping division	2,288			2,288
Subtotal	85,352		27,978	113,330
Total repayment and other credits	36,416,332	4,754,214	27,978	41,198,524
Surplus	318,867	0	0	318,867

PAYOUT STUDY—MINIDOKA PROJECT—Continued

Fiscal year	POWER				IRRIGATION				RECAPITULATION				
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric plant		Interest free aid to irrigation plant		Net revenue from water users	Total obligation	Interest free balance to be repaid	Power revenue applied to project non-power costs	Net project revenues	Earned surplus, cumulative
		Interest, 3 percent	Principal	In service at end of year	Balance to be repaid	Required aid	Balance to be repaid						
Through 1948	\$3,051,473	\$100,111	2,951,362	\$1,505,606	\$441,675	\$499,749	0	\$12,077,524	\$19,867,550	\$7,790,026	---	\$15,128,997	0
1949	304,541	13,250	291,291	1,505,606	399,704	499,749	0	413,227	19,847,614	7,356,863	---	717,768	0
1950	241,069	11,991	229,078	1,505,606	382,357	499,749	0	382,196	19,846,947	6,974,000	---	623,265	0
1951	252,998	11,471	241,527	1,505,606	339,471	499,749	0	389,187	19,788,615	6,526,481	---	642,185	0
1952	146,248	10,184	136,064	2,239,103	511,226	537,850	0	376,508	19,788,816	6,150,174	---	522,756	0
1953	108,065	15,340	92,725	2,321,495	519,828	547,849	0	1,175,539	20,998,299	6,184,118	---	1,283,604	0
1954	213,969	15,595	198,374	2,359,610	482,875	556,028	0	336,643	20,998,436	5,847,612	---	550,612	0
1955	158,430	14,486	143,944	2,501,255	459,573	556,635	0	443,507	20,804,525	5,210,194	---	601,937	0
1956	133,639	13,787	119,852	2,570,374	417,183	561,229	0	326,784	20,804,525	4,883,410	---	460,423	0
1957	176,401	12,515	163,886	2,576,800	398,275	550,415	0	1,126,903	21,795,896	4,474,878	---	1,303,304	0
1958	88,402	12,137	76,265	2,965,734	360,643	550,008	0	321,265	21,796,250	4,426,967	---	409,667	0
1959	88,191	11,008	77,183	2,965,489	331,850	549,449	0	320,979	21,796,250	4,105,988	---	409,170	0
1960	96,875	9,956	86,919	3,003,040	309,127	550,614	0	588,585	21,888,124	3,609,277	---	685,460	0
1961	61,032	9,274	51,758	3,033,079	287,743	559,274	0	302,279	21,866,744	3,285,618	---	363,311	0
1962	97,404	8,632	88,772	3,055,942	282,904	567,550	0	328,945	34,466,536	15,556,465	---	426,349	0
1963	281,734	6,345	275,389	2,960,653	538,672	532,312	0	314,781	34,466,536	15,241,684	---	596,515	0
1964	263,292	9,359	253,933	2,892,317	65,620	381,529	0	278,815	34,449,686	14,946,019	---	542,107	0
1965	277,929	1,969	275,960	1,726,393	115,221	\$91,841	0	126,025	34,449,686	14,819,994	---	403,954	0
1966	63,037	3,457	59,580	1,840,140	169,388	0	0	143,743	34,449,686	14,676,251	---	206,780	0
1967	(11,572)	5,082	(16,654)	1,858,565	204,467	0	0	145,452	34,449,686	14,530,799	---	133,880	0
1968	29,662	6,134	23,528	1,854,985	177,359	0	0	173,329	34,449,686	14,357,470	---	202,991	0
1969	172,783	5,321	167,462	2,237,983	392,895	0	0	192,203	34,449,686	14,165,267	---	364,986	0
Adjustments—ARRS	(10,488)	(10,488)	---	---	---	---	---	---	---	---	---	(10,488)	0
Subtotal	6,285,114	296,916	5,988,198	2,237,983	392,895	0	0	20,284,419	34,449,686	14,165,267	4,143,110	26,569,533	0
1970	(108,100)	11,787	(119,887)	2,532,483	797,282	0	0	191,992	34,449,686	13,973,275	0	83,892	0
1971	73,900	23,918	49,982	2,532,483	747,300	0	0	198,689	34,449,686	13,774,586	0	272,589	0
1972	29,622	22,419	7,203	2,532,483	740,097	0	0	208,417	34,449,686	13,566,169	0	238,039	0
1973	29,622	22,203	7,419	2,532,483	732,678	0	0	230,325	34,449,686	13,335,844	0	259,947	0
1974	29,622	21,980	7,642	2,532,483	725,036	0	0	244,479	34,449,686	13,091,365	0	274,101	0
1975	29,622	21,751	7,871	2,532,483	717,165	0	0	250,052	34,449,686	12,841,313	0	279,674	0
1976	29,622	21,515	8,107	2,532,483	709,058	0	0	256,748	34,449,686	12,584,565	0	286,370	0
1977	29,622	21,272	8,350	2,532,483	700,708	0	0	266,015	34,449,686	12,318,550	0	295,637	0
1978	29,622	21,021	8,601	2,532,483	692,107	0	0	290,766	34,449,686	12,027,784	0	320,388	0
1979	29,622	20,763	8,859	2,532,483	683,248	0	0	304,920	34,449,686	11,722,864	0	334,542	0
1980	29,622	20,497	9,125	2,532,483	674,123	0	0	244,494	34,449,686	11,478,370	0	274,116	0
1981	29,622	20,224	9,398	2,532,483	664,725	0	0	257,376	34,449,686	11,220,994	0	303,566	0
1982	29,622	19,942	9,680	2,532,483	655,045	0	0	273,944	34,449,686	10,947,050	0	338,344	0
1983	29,622	19,651	9,971	2,532,483	645,074	0	0	308,722	34,449,686	10,638,328	0	365,842	0
1984	29,622	19,352	10,270	2,532,483	634,804	0	0	336,220	34,449,686	10,302,108	0	373,344	0
1985	29,622	19,044	10,578	2,532,483	624,226	0	0	343,722	34,449,686	9,958,386	0	373,344	0
1986	29,622	18,727	10,895	2,532,483	613,331	0	0	343,722	34,449,686	9,614,664	0	373,344	0
1987	29,622	18,400	11,222	2,532,483	602,109	0	0	346,429	34,449,686	9,268,235	0	376,051	0
1988	29,622	18,063	11,559	2,532,483	590,550	0	0	346,429	34,449,686	8,921,806	0	376,051	0

PAYOUT STUDY—MINIDOKA PROJECT—Continued

Fiscal year	POWER			IRRIGATION			RECAPITULATION	
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric plant		Total obligation	Power revenue applied to project non-power costs	Net revenues
		Interest, 3 percent	Principal	In service at end of year	Balance to be repaid			
1989	29,622	17,717	11,905	2,522,483	578,645	34,449,686	0	376,051
1990	29,622	17,359	12,263	2,522,483	566,382	34,449,686	0	376,051
1991	29,622	16,991	12,631	2,522,483	553,751	34,449,686	0	369,758
1992	29,622	16,613	13,009	2,522,483	540,742	34,449,686	0	349,131
1993	29,622	16,222	13,400	2,522,483	527,342	34,449,686	0	349,131
1994	29,622	15,820	13,802	2,522,483	513,540	34,449,686	0	349,131
1995	29,622	15,406	14,216	2,522,483	499,324	34,449,686	0	349,131
1996	29,622	14,980	14,642	2,522,483	484,682	34,449,686	0	349,131
1997	29,622	14,540	15,082	2,522,483	469,600	34,449,686	0	340,886
1998	29,622	14,088	15,534	2,522,483	454,066	34,449,686	0	340,886
1999	29,622	13,622	16,000	2,522,483	438,066	34,449,686	0	336,556
2000	29,622	13,142	16,480	2,522,483	421,586	34,449,686	0	336,556
2001	29,622	12,708	16,914	2,522,483	404,672	34,449,686	0	331,731
2002	29,622	12,200	17,422	2,522,483	387,250	34,449,686	0	331,731
2003	29,622	11,678	17,944	2,522,483	369,306	34,449,686	0	331,731
2004	29,622	11,139	18,483	2,522,483	350,823	34,449,686	0	331,731
2005	29,622	10,614	19,037	2,522,483	331,786	34,449,686	0	331,731
2006	29,622	10,014	19,608	2,522,483	312,178	34,449,686	0	331,731
2007	29,622	9,425	20,197	2,522,483	291,981	34,449,686	0	331,731
2008	29,622	8,819	20,803	2,522,483	271,178	34,449,686	0	331,731
2009	29,622	8,195	21,427	2,522,483	249,751	34,449,686	0	331,731
2010	29,622	7,553	22,069	2,522,483	227,682	34,449,686	0	331,731
2011	29,622	6,890	22,732	2,522,483	204,950	34,449,686	0	331,731
2012	29,622	6,209	23,413	2,522,483	181,537	34,449,686	0	331,731
2013	29,622	5,506	24,116	2,522,483	157,421	34,449,686	0	331,731
2014	29,622	4,783	24,839	2,522,483	132,753	34,449,686	0	331,731
2015	29,622	4,037	25,585	2,522,483	106,997	34,449,686	0	331,731
2016	29,622	3,265	26,352	2,522,483	80,645	34,449,686	0	331,731
2017	29,622	2,509	27,113	2,522,483	53,532	34,449,686	0	331,731
2018	29,622	1,696	27,926	2,522,483	25,606	34,449,686	0	331,731
2019	26,464	858	25,606	2,522,483	0	34,449,686	0	7,340
2020	0	0	0	2,522,483	0	34,449,686	0	7,340
2021	0	0	0	2,522,483	0	34,449,686	0	7,340
Total	7,669,612	1,004,019	6,665,593	2,522,483	0	34,449,686	4,143,110	42,119,298
								0

MIRAGE FLATS PROJECT

NEBRASKA

The construction of the Mirage Flats project in Dawes and Sheridan Counties of Nebraska near Hay Springs, was recommended by the Secretary of the Interior on March 30, 1940, and approved by the President on April 26, 1940, under the terms of the water conservation and utilization provisions of the 1940 Interior Department Appropriation Act of May 10, 1939 (53 Stat. 685). Construction was initiated in January 1941 but was suspended in December 1942 by order of the War Production Board. Following a finding by the Secretary of the Interior that construction of the project was justifiable as an aid in the production of needed agricultural products, the President, on July 13, 1944, approved completion of the project under the July 16, 1943 "war food" amendment of the Water Conservation and Utilization Act of August 11, 1939. Construction was resumed in 1944 and was completed in 1946.

The project was developed to irrigate, rehabilitate, and thereby stabilize 11,662 acres of land previously dry-farmed. Of this, 10,795 acres were irrigated in 1969. The 1969 gross crop value was \$912,534, or an average of \$84.53 per acre.

Project features include Box Butte Dam and Reservoir, Dunlap Diversion Dam, Mirage Flats Canal, four laterals, and the necessary drainage systems.

In addition to construction of the project irrigation works, the Bureau of Reclamation was responsible for operating and maintaining the project and for contracting with the water users for the reimbursable cost of the project works. The United States Department of Agriculture was responsible for acquisition of the irrigable lands, development of the farm units, selection of settlers and the sale of the farm units to the settlers.

Bureau of Reclamation costs of constructing the project totaled \$3,101,835, including the cost of operation and maintenance equipment furnished the Mirage Flats Irrigation District. In addition, during the early

stages of project construction, the Work Projects Administration furnished labor and materials valued at \$346,119 and the Civilian Conservation Corps furnished services valued at \$8,247. The reimbursable cost of the project works constructed by the Bureau of Reclamation was fixed at \$841,918 in the original 1940 project authorization and was reaffirmed in 1944 when completion of the project was approved.

Operation and maintenance of the project was transferred to the Mirage Flats Irrigation District January 1, 1951.

Repayment contracts.—The original Mirage Flats Irrigation District repayment contract was made December 28, 1950. The contract specifies the repayment of \$841,918, plus whatever portion of \$31,300 that may have been expended by the United States for equipment and machinery for operation and maintenance of the project on or before the District took over the care, operation, and maintenance of the project works on January 1, 1951. This amounts to \$26,918.

The contract was amended in accordance with the act of August 21, 1957 (71 Stat. 402), on March 21, 1958. This amended contract provides: (a) that the District shall repay the amount of \$841,917.53, which is the sum of the reimbursable project costs of \$815,000.00 and additional expenditures by the United States of \$26,917.53 for equipment and machinery for the operation and maintenance of the project; (b) that payment of the District's obligation shall be made in 39 successive annual installments; (c) that of the \$12,662.40 of accumulated development period credits, \$12,642 be applied to reduce the delinquent payments and accumulated penalties accrued as of August 21, 1957; (d) that the remaining development period credits in the amount of \$20.40 be applied to the 39th installment; (e) for the reduction of the 38th installment to \$24,890; and (f) for the adjustment of annual installments in the same ratio that the annual

crop price index varies up or down from the base crop price index for a weighted average of the three principal crops.

Because of extremely adverse weather conditions which seriously limited crop production during 1962 and 1963 in the project area, construction charge deferment contracts were entered into with the District on January 16, 1963, and June 26, 1964.

CONTRACTS

1950, December 28: Contract I81r-1415 with Mirage Flats Irrigation District for \$815,000.00, plus other costs prior to January 1, 1951.

1958, March 21: Contract I81r-1415, amendment No. 1, with the Mirage Flats Irrigation District primarily to apply \$12,642 in development period credits toward the reduction of installment delinquencies, to reduce the 38th installment in line with prior installments, and to schedule a 39th installment to culminate payment of the District's construction obligation. This amendment also precisely stated the District's total construction obligation, changed the due date of the annual installment from October 1 to December 31 commencing with the 1958 installment, and made provision for the potential application of a variable-payment plan.

1963, January 16: Contract I81r-1415, amendment No. 2, with the Mirage Flats Irrigation District deferring the 1963 installment and one-half of the 1964 installment of the District's construction obligation. The total amount deferred, totaling \$37,335, rescheduled for payment in four equal amounts of \$9,334 each during the years 1966 to 1969, inclusive.

1964, June 26: Contract I81r-1415, amendment No. 3, with the Mirage Flats Irrigation District rescinded the January 16, 1963, contract amendment No. 2; deferred in full the

1963, 1964, and 1965 construction charge installments of \$24,890 each; and rescheduled payment of the \$74,670 total amount deferred in 10 equal annual amounts, to be added to regular installments Nos. 20 through 29 coming due in the years 1970 through 1979.

Summary of status of repayment contract:

Total value of contracted repayment for irrigation works	\$815,000
Actual equipment cost under repayment contract ...	26,918
Total	841,918
Total matured charges	256,790
Total matured charges repaid	256,790
Total matured charges unpaid	0

Payout schedule.—Following a 5-year development period, construction repayment, scheduled over a 39-year period, commenced in 1951. The current schedule, as adjusted by the 1958, 1963, and 1964 contract amendments, is as follows:

Installment number	Calendar year	Amount
1-4-----	1951-54	\$1,000
5-----	1955	18,890
6-----	1956	19,890
7-----	1957	20,890
8-----	1958	22,890
9-12-----	1959-62	23,890
13-15-----	1963-65	0
16-19-----	1966-69	24,890
20-29-----	1970-79	32,357
30-38-----	1980-88	24,890
39-----	1989	12,658

CONSTRUCTION REPAYMENT HISTORY¹

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1951-----	\$841,918	0	0	0	0	0	0	0
1952-----	841,918	\$1,000	0	\$1,000	\$1,000	0	\$1,000	\$1,000
1953-----	841,918	1,000	0	1,000	1,000	0	1,000	2,000
1954-----	841,918	1,000	0	1,000	1,000	0	1,000	3,000
1955-----	814,918	1,000	0	1,000	1,000	0	1,000	4,000
1956-----	841,918	18,890	0	18,890	7,500	0	7,500	11,500
1957-----	841,918	19,890	0	19,890	19,890	0	19,890	31,390
1958-----	841,918	20,890	0	20,890	20,890	\$11,390	32,280	63,670
1959-----	841,918	22,890	0	22,890	22,890	0	22,890	86,560
1960-----	841,918	23,890	0	23,890	23,890	0	23,890	110,450
1961-----	841,918	23,890	0	23,890	23,890	0	23,890	134,340
1962-----	841,918	23,890	0	23,890	23,890	0	23,890	158,230
1963-----	841,918	23,890	0	23,890	23,890	0	23,890	182,120
1964-----	841,918	² 0	0	0	² 0	0	0	182,120
1965-----	841,918	² 0	0	0	² 0	0	0	182,120
1966-----	841,918	² 0	0	0	² 0	0	0	182,120
1967-----	841,918	24,890	0	24,890	24,890	0	24,890	207,010
1968-----	841,918	24,890	0	24,890	24,890	0	24,890	231,900
1969-----	841,918	24,890	0	24,890	24,890	0	24,890	256,790
Total--	-----	256,790	0	256,790	215,400	11,390	256,790	-----

¹ Prior to 1952, the Mirage Flats Cooperative Association, lessee of the acreage, paid for water delivered at rates fixed by the Commissioner of the Bureau of Reclamation.

² Construction charge obligation due and payable for years 1963, 1964, and 1965 deferred, in accordance with amendment No. 3 of contract No. 181r-1415, dated June 26, 1964, and the sum of these deferred installments, being \$74,670, shall be spread in 10 equal installments of \$7,467 each, to be added to and become a part of installments due for the years 1970 through 1979, inclusive.

Statement of project cost and repayment:

Amount to be allocated:

Irrigation plant \$3,061,696
 Property transfers 40,139

Total 3,101,835

Repayment and other credits

Repayment realized:

Repayment contracts matured 256,790

Rentals and other income 5,831

Subtotal repayment realized 262,621

Anticipated future repayment: repayment

contracts unmatured 585,128

Total repayment 847,749

Nonreimbursable expense:

Water Conservation and Utilization Act,

October 14, 1940 2,259,917

Total repayment and other credits 3,107,666

Surplus 5,831

MISSOULA VALLEY PROJECT

MONTANA

Construction of the Big Flat unit of the Missoula Valley project in Missoula County, Montana, was approved by the President on May 10, 1944, under authority of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended.

The Big Flat unit was developed to furnish irrigation water to over 900 acres of previously unirrigated lands. Facilities consist of a canal diverting water from the Bitterroot River at a point 5 miles southwest of Missoula, Mont. In 1969, the irrigable area for service and the irrigated area were 780 acres and 300 acres, respectively. The gross value of crops produced on the irrigated area was \$15,316 and the average value per irrigated acre was \$51.05.

The total actual cost of constructing the Big Flat unit was \$278,282, excluding \$5,000 of Columbia Basin flood repair funds allocated in 1949. Under authority of the Water Conservation and Utilization Act, \$45,000 of this amount was established as the reimbursable obligation of the Big Flat Irrigation District. This obligation was further reduced by the act of May 28, 1964 (Public Law 88-315), to \$37,826. This further reduction was based on the unmatured charges as of December 30, 1962, against 164.3 acres of land that were classified as nonproductive. A total of \$240,472 has been declared nonreimbursable.

The Bureau of Reclamation operated the system during a 5-year development period. Operation by water users began January 1, 1955.

Repayment contracts.—The Big Flat Irrigation District contract was signed April 2, 1945. This contract provides for repayment of \$45,000 in 80 semiannual installments following a 5-year development period. Development period accruals and collections were \$3,000, \$2,261, \$1,859, \$2,069, and \$1,564 for fiscal year 1950 through fiscal year 1954, respectively. An amendatory contract was signed September 22, 1964, that reduced the District's obligation by \$7,190. This

was the remaining obligation on 164.3 acres of land classified as unproductive, leaving 780.3 acres irrigable and subject to future repayment. The District's obligation was increased by \$16, representing interest on delinquent installments at the time the contract was signed.

PUBLIC NOTICE AND CONTRACTS

1945, April 2: Contract IIR-1434 with Big Flat Irrigation District for repayment of \$45,000 allocated as reimbursable.
1949, November 25: Public notice announcing development period as the 5-year period commencing January 1, 1950.
1964, September 22: Contract 14-06-100-4278 with Big Flat Irrigation District reduced the repayable obligation from \$45,000 to \$37,826 and incorporated a variable repayment formula for future installments.

Payout schedule.—The first construction charge payment was made in 1956 and repayment will be completed in 1995. Installments are due semiannually on December 31 and June 30 each year.

Summary of status of repayment contract:

Total value of contracted repayment	\$37,826
Total matured charges	8,764
Total matured charges repaid	8,764
Total matured charges unpaid	0

Cost and repayment allocation:

Cost	
Irrigation plant	\$278,282
Interest and penalties	16
Total	<u>278,298</u>
Repayment	
Reimbursable costs:	
Repayment contracts—Irrigation	37,826
Nonreimbursable costs:	
Water Conservation and Utilization Act	240,472
Total repayments and other credits	<u>278,298</u>

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1956-----	\$45,000	\$422	-----	\$422	\$422	-----	\$422	\$422
1957-----	45,000	422	-----	422	211	-----	211	633
1958-----	45,000	422	-----	422	211	\$211	422	1,055
1959-----	45,000	422	-----	422	-----	-----	-----	1,055
1960-----	45,000	562	-----	562	-----	422	422	1,477
1961-----	45,000	563	-----	563	-----	757	757	2,234
1962-----	45,000	844	-----	844	-----	298	298	2,532
1963-----	45,000	844	-----	844	-----	1,125	1,125	3,657
1964-----	45,000	1,125	-----	1,125	-----	844	844	4,501
1965-----	37,826	752	-\$1,125	-373	752	-----	752	5,253
1966-----	37,826	794	-----	794	794	-----	794	6,047
1967-----	37,826	901	-----	901	901	-----	901	6,948
1968-----	37,826	875	-----	875	875	-----	875	7,823
1969-----	37,826	941	-----	941	941	-----	941	8,764
Total -----	-----	9,889	-1,125	8,764	5,107	3,657	8,764	-----

MISSOURI RIVER BASIN PROJECT

TEN STATES

The initial stages of the Missouri River Basin project were authorized by the Flood Control Act of December 22, 1944 (58 Stat. 887, Public Law 534, 78th Congress, 2d session), which approved the general comprehensive plan set forth in Senate Document 191 and House Document 475, as revised and coordinated by Senate Document 247, 78th Congress. The comprehensive plan was authorized by the Flood Control Act of July 24, 1946 (60 Stat. 634), and subsequent legislation for the conservation, control, and use of water resources in the entire Missouri River Basin.

The act of August 14, 1964 (80 Stat. 322), specified that no funds would be available to initiate construction of any unit, whether included in the comprehensive plan or not, which is not separately authorized by Congress.

While the present plan of development follows the original plans as presented in these documents, it also includes modifications and additions which are being determined by continuing investigations to be essential to full development of the basin resources. These have been progressively reported to the Congress.

Angostura project had been authorized previously but was reauthorized and constructed as a unit of Missouri River Basin project. The Ainsworth, Farwell, Garrison Diversion, Glendo, and Oahe units and Nebraska Mid-State division have been separately authorized or reauthorized.

Units of the Missouri River Basin project presently constructed or authorized include 926,000 irrigable acres for full irrigation service and 160,000 irrigable acres for supplemental irrigation service. Project facilities were completed as of 1969 to provide full service to 312,000 acres and supplemental service to 149,000 acres. The project also includes power generation from

plants with a total installed capacity of 2,489,000 kilowatts, municipal and industrial water supplies, flood control, aids to navigation, stream-pollution abatement, sediment control, preservation and enhancement of fish and wildlife, and creation of recreational opportunities.

Only the divisions or units which have been constructed or are under construction are described here.

The total estimated construction cost and tentative allocation of those costs for the entire Missouri River Basin project are presented in the table, "Allocation and Repayment of Costs." In the payout study for the Missouri River Basin project, the "net operating revenues" are the revenues derived from the sale of electric energy from the integrated power system of the Missouri River Basin market area. The power systems of the Colorado-Big Thompson, Kendrick, North Platte, Riverton, and Shoshone projects have been integrated with the Missouri River Basin project for the purpose of marketing the power produced from these projects, with the Missouri River Basin project acting as the marketing agent. In return for all the power generated on the five integrated projects, the Missouri River Basin project returns to each project revenues sufficient to cover the annual operating expenses and reserve for replacement of the production facilities and allow a net operating revenue great enough to repay the construction costs for the whole project as though it was operating individually.

The Fort Peck project has been included in the Missouri River Basin project payout study for repayment purposes. The Fort Peck power system has been integrated with the Missouri River Basin project to serve a common market area.

HYDROELECTRIC POWERPLANTS IN OPERATION AND UNDER CONSTRUCTION—MISSOURI RIVER BASIN PROJECT

Plant and State	River or stream	Fiscal year construction began	Calendar year first power generated or scheduled	Power capacity (kilowatts)
Total				2,489,000
Angostura, South Dakota	Cheyenne	1951	1951	1,200
Big Bend, South Dakota (USCE) *	Missouri	1960	1964	468,000
Boysen, Wyoming	Bighorn	1947	1952	15,000
Canyon Ferry, Montana	Missouri	1949	1953	50,000
Fort Peck, Montana (USCE) *	Missouri	1940	1943	165,000
Fort Randall, South Dakota (USCE) *	Missouri	1947	1954	320,000
Fremont Canyon, Wyoming	North Platte	1957	1960	48,000
Garrison, North Dakota (USCE) *	Missouri	1947	1956	400,000
Gavins Point, South Dakota (USCE) *	Missouri	1952	1956	100,000
Glendo, Wyoming	North Platte	1955	1958	24,000
Kortes, Wyoming	North Platte	1946	1950	36,000
Oahe, South Dakota (USCE) *	Missouri	1952	1962	595,000
Yellowtail	Big Horn	1961	1966	250,000
Prairie Creek Pumped-Storage Powerplant	Platte (offstream)	Authorized	After 1975	16,800

* Powerplants built and operated by U.S. Corps of Engineers: transmission lines, power sales, and cost allocation under jurisdiction of Bureau of Reclamation.

ALLOCATION AND REPAYMENT OF COST—MISSOURI RIVER BASIN PROJECT

Item	Bureau of Reclamation			Corps of Engineers	Other agencies, Department of the Interior	Total
	Missouri River Basin		Fort Peck project			
	Bureau units	Requiring reauthoriza- tion				
Total estimated cost -----	\$1,640,986,187	\$2,015,288,974	\$18,660,124	\$1,257,141,900	\$32,305,000	\$4,964,382,185
<i>Allocation</i>						
Reimbursable:						
Irrigation -----	886,231,022	1,616,520,767		302,894,300		2,805,646,089
Power -----	385,876,263	246,765,613	18,645,117	584,190,400		1,235,477,393
Municipal and industrial water -----	46,986,116	4,018,154		4,331,100		55,335,370
Recreation -----	3,851,562					3,851,562
Fish and wildlife conservation -----	1,252,886					1,252,886
Subtotal, reimbursable -----	1,324,197,849	1,867,304,534	18,645,117	891,415,800		4,101,563,300
Nonreimbursable:						
Flood control and navigation -----	189,451,490	82,339,041		334,724,600		606,515,131
Fish and wildlife conservation -----	59,967,215	60,502,113		5,868,000		126,337,328
Recreation -----	18,622,590	147,349		17,458,500		36,228,439
Municipal water (military) -----	1,000,000					1,000,000
Investigations -----	42,555,471	4,995,937	15,007		32,305,000	79,871,415
Highway and airport -----	4,963,500			7,675,000		12,638,500
Irrigation -----	228,072					228,072
Subtotal, nonreimbursable -----	316,788,338	147,984,440	15,007	365,726,100	32,305,000	862,818,885
<i>Repayment</i>						
Repayment contracts -----	124,916,021	(1)				124,916,021
Power revenues -----	1,098,867,773	1,485,570,094	18,645,117	891,415,800		3,494,498,784
Other sources:						
Contributions and advances -----	5,369,068	1,034,660				6,403,728
Water rental and service contracts						
Irrigation -----	45,054,150	180,758,717				225,812,867
Municipal and industrial water -----	49,774,481	199,697,000				249,471,481
Miscellaneous receipts and depreciation -----	216,356	244,063				460,419
Total -----	1,324,197,849	1,867,304,534	18,645,117	891,415,800		4,101,563,300

¹ Included in water service contracts pending development of repayment plans in accordance with required authorizations.

AINSWORTH UNIT—SANDHILLS DIVISION, NEBRASKA

The Ainsworth unit has been separately authorized as a part of the Missouri River Basin project under P.L. 612 (68 Stat. 757), 83d Congress, 2d Session, approved August 21, 1954. The feasibility report was approved by P.L. 531 (70 Stat. 160), 84th Congress, May 18, 1956.

The Ainsworth unit was developed primarily for the irrigation of 33,960 acres of land in Brown and Rock Counties in northcentral Nebraska. The principal facilities of the project include Merritt Dam and Reservoir, in the valley of the Snake River in eastern Cherry County, about 26 miles southwest of the city of Valentine; the 53-mile Ainsworth Canal; 185 miles of laterals; and approximately 63 miles of surface and subsurface drains. With the exception of construction of drainage works, construction of the project works is substantially completed.

The total estimated project cost of the Ainsworth unit and allocation is as follows:

Merritt Dam and Reservoir	\$6,395,486
Ainsworth canals, laterals and drains	18,833,359
Other irrigation facilities	141,675
Balance to complete	601,472
Total plant, property and equipment	25,971,992
Settlers' assistance	29,005
Property transfers	149,003
Total cost	26,150,000
Reimbursable:	
Irrigation	25,429,400
Nonreimbursable:	
Fish and wildlife	470,600
Recreation	250,000
Subtotal	720,600
Total	26,150,000

A total of 22,666 acres were irrigated in 1969, producing crops with a total gross value of \$2,585,540 for an average of \$114.07 per acre. The irrigable area for service is 33,960 acres.

The District assumed operation and maintenance responsibility of the water supply and distribution works, including Merritt Dam and Reservoir, on April 1, 1967.

Repayment contract.—A combination water-service and repayment contract was entered into September 12, 1956, with the Ainsworth Irrigation District. The repayment contract contains a construction charge obligation in the amount of \$6,700,000 to apply on costs of

constructing the distribution works and the portion of drainage works required immediately. Repayment by the District will be in annual installments over a 40-year repayment period following a 10-year development period. The development period commenced on April 1, 1967, and ends December 31, 1976.

The District will also make annual water-service payments to the United States. During a 50-year repayment period, water-service payments by the District pursuant to its 1956 contract, and a future renewal of the water service portion thereof, are expected to return an estimated \$2,830,000, to apply on the construction cost of the water supply works serving the District. The reimbursable construction cost of water supply works in excess of water user ability to pay will be returned from surplus power revenues of the Missouri River Basin project.

CONTRACTS

1956, September 12: Contract 14-06-700-1218, original contract with the Ainsworth Irrigation District written under sections 9(d) and 9(e) of the 1939 Reclamation Projects Act. Construction obligation \$6,700,000, payable in 40 equal, successive annual installments.

1967, March 31: Amendment to contract 14-06-700-1218 with the Ainsworth Irrigation District extended the development period from 5 to 10 years. The 1956 contract was redrafted in its entirety so this contract replaces or supersedes the 1956 contract. Payments on the construction obligation are due one-half on or before July 1 and one-half on or before December 1 of each year. Payments for water service are due and payable in advance of delivery of water each year. Water-service charges are to be computed at the rate of \$1 per acre-foot. During the development period, the charge will be paid on any water used in excess of a quantity determined to be an adequate supply for the acres actually irrigated. After completion of the development period, the charge will be paid for all water in excess of a three-fourths supply, as determined pursuant to a formula in the contract.

Summary of status of repayment contract:

Total value of construction charge obligations	\$6,700,000
Total matured charges	0

ALMENA UNIT—KANASKA DIVISION, KANSAS

The Almena unit was approved by the Flood Control Act of 1944 (Public Law 534, 78th Congress, 2d Session) as a unit of the Missouri River Basin Plan, and authorized by the Flood Control Act of 1946 (Public Law 526, 79th Congress, 2d Session).

The Almena unit serves the city of Norton, Kans., a full municipal water supply and serves irrigation water

to 5,350 acres of irrigable land. The principal facilities of the project include Norton Dam and Reservoir, Almena Diversion Dam, Almena Main and South canals, and laterals. With the exception of construction of the drainage works, construction of the project works is substantially completed.

Norton Dam and Reservoir is operated for flood control, irrigation, municipal water, fish and wildlife conservation, and enhancement of recreational opportunities.

The District assumed operation and maintenance responsibility of the distribution works on April 1, 1968. The multipurpose Norton Dam and Reservoir is operated and maintained by the Bureau of Reclamation, with 18.9 percent of the cost being advanced by the Almena Irrigation District, 1.5 percent advanced by the city of Norton, and 79.6 percent from current annual appropriations for the nonreimbursable flood control function.

A total of 5,262 acres were irrigated in 1969, producing crops with a total gross value of \$753,235 for an average of \$143.15 per acre. The irrigable area for service is 5,350 acres.

The total estimated project cost of the Almena unit and allocation is as follows:

Norton Dam and Reservoir	\$16,972,384
Almena Diversion Dam, canals, laterals and drains	3,759,707
Balance to complete	325,570
	<hr/> 21,057,661
Property transfers	28,330
Settlers' assistance	3,009
	<hr/> 21,089,000
Allocation:	
Reimbursable:	
Irrigation	6,490,300
M&I	365,000
Total reimbursable	<hr/> 6,855,300
Nonreimbursable:	
Fish and wildlife	2,057,100
Recreation	190,000
Flood control	11,655,100
Highway betterment	331,500
Subtotal	<hr/> 14,233,700
Total	<hr/> <hr/> 21,089,000

Repayment contract.—A combination water-service and repayment contract was entered into March 7, 1958, with Almena Irrigation District No. 5. The repayment contract contains a construction charge obligation in the amount of \$622,800 to cover costs of

constructing the distribution works and the portion of drainage works required immediately. Repayment by the District will be in annual installments, based on a 40-year repayment period following a 5-year development period. The development period commenced on April 1, 1968, and ends December 31, 1972.

The District will also make annual water-service payments to the United States. During a 50-year repayment period, water-service payments by the District pursuant to its 1958 contract, and a future renewal of the water service portion thereof, are expected to cover the District's share of Norton Reservoir O&M costs and to return an estimated \$355,700 to apply on the construction cost of the water supply works serving the District. The reimbursable construction cost of water supply works in excess of water user ability to pay will be returned from surplus power revenues of the Missouri River Basin project.

CONTRACTS

1958, March 7: Contract 14-06-700-1579, original repayment contract with the Almena Irrigation District, written pursuant to sections 9(d) and 9(e) of the 1939 Reclamation Projects Act, provides for a construction obligation of \$622,800, payable in 40 equal annual installments following a 5-year development period. Payments on construction obligation are due one-half on or before February 1 and one-half on or before August 1. Payments for water service are due and payable in advance of delivery of water each year. Water service charges during the development period are established annually in an amount sufficient to cover the District's share of the cost of Bureau O&M of Norton Reservoir. After the development period, the annual water service charge will be \$7,100 for a base water supply of 8,700 acre-feet. Additional water will be furnished upon advance payment at the rate of \$1 per acre-foot.

1958, March 7: Contract 14-06-700-1573, original contract for municipal water with the city of Norton, Kans., written pursuant to section 9(c) of the 1939 act, provides for a construction obligation of \$365,000, with interest at 2½ percent payable in 40 equal annual installments of \$14,540. The city is to be furnished 1,600 acre-feet of water annually and is to pay 1½ percent of the costs of operating Norton Dam, Reservoir, and appurtenant works.

Summary of status of repayment contracts:

Irrigation—Almena Irrigation District:	
Total value of contracted repayment	\$622,800
Total matured charges	0
Municipal and industrial water—City of Norton, Kans.:	
Total value of contracted repayment	365,000
Total matured charges	19,676
Total matured charges repaid	19,676
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—CITY OF NORTON, KANSAS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1966-----	\$365,000	\$2,707	-----	\$2,707	\$2,707	-----	\$2,707	\$2,707
1967-----	365,000	5,516	-----	5,516	5,516	-----	5,516	8,223
1968-----	365,000	5,655	-----	5,655	5,655	-----	5,655	13,878
1969-----	365,000	5,798	-----	5,798	5,798	-----	5,798	19,676
Total-----	-----	19,676	-----	19,676	19,676	-----	19,676	-----

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—CITY OF NORTON, KANS.

Fiscal year	Accruals	Collections
1966-----	\$289	\$289
1967-----	349	349
1968-----	137	137
1969-----	330	330
Total-----	1,105	1,105

ANGOSTURA UNIT—CHEYENNE DIVISION,
SOUTH DAKOTA

The Angostura unit, located on the Cheyenne River in Fall River and Custer Counties, South Dakota, was authorized initially by the President on February 19, 1941, under the Water Conservation and Utilization Act of 1944, and constructed as a unit of the Missouri River Basin project.

Angostura Dam and Reservoir provides a water supply for 12,218 acres of irrigable lands which lie downstream from the reservoir for a distance of 24 miles. Crop value of \$855,526 in 1969 averaged \$87.61 per acre irrigated. From 1953 to 1969, crop value has amounted to \$10,672,123. Other purposes served are flood control, fish and wildlife conservation, and recreation.

The principal features of the unit are the Angostura Dam and Reservoir with a storage capacity of 138,800 acre-feet, plus 57,500 acre-feet of surcharge storage for flood control; the Angostura Powerplant, inoperative since 1959 and now awaiting disposition; and an irrigation distribution system consisting of 30 miles of canal, 39 miles of laterals, and 34 miles of drains.

Construction of the dam was begun in September 1946 and completed in December 1949; the powerplant was begun in September 1950 and completed in December 1951; and the irrigation system other than drains was begun in April 1951 and completed in

July 1953. First power was available in December 1951 and first water in July 1953. Storage in Angostura Reservoir began in October 1949.

All facilities are currently being operated and maintained by the Angostura Irrigation District with the United States reimbursing the District for 27.6 percent of the cost of operating and maintaining the supply works, this being the portion applicable to benefits other than Angostura unit irrigation.

Total cost of the completed unit is \$15,383,863, which is allocated as follows: irrigation \$14,521,224, power \$449,015, recreation \$25,407, fish and wildlife \$9,866, flood control and navigation \$378,351.

Repayment contract.—The contract with the Angostura Irrigation District is a combined water-service and repayment agreement. The contract was signed May 29, 1951, and became effective at the beginning of the development period, January 1, 1956.

Repayment of distribution system construction costs of \$718,000 began in 1968. Annual water service charge obligations are \$3,650 for a period of 30 years beginning in 1968. Annual payments due to the United States on construction costs and water service charges are determined according to a variable formula reflecting the farm parity ratio and total irrigated crop value for the project for each year. The first delivery of water under terms of the contract was made in 1956.

CONTRACTS

1951, May 29; 1955, May 31, supplement 1; 1958, October 1 supplement 2: Water service and repayment contract 179r-1974 between Angostura Irrigation District and the United States for 40 years plus 10-year development period. Initial delivery of water scheduled for 1956. Repayment portion of contract provides for payment of \$17,950 annually for 40 years beginning in 1966. Water service portion of contract provides for payment during first 10 years, beginning 1956, of an amount equal to the annual operation and maintenance cost of the Dis

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1956-----	\$15,500	\$15,500
1957-----	18,990	18,990
1958-----	20,830	20,830
1959-----	22,000	22,000
1960-----	25,593	25,593
1961-----	36,000	36,000
1962-----	(¹)	(¹)
1963-----	36,000	36,000
1964-----	35,000	35,000
1965-----	35,000	35,000
1966-----	36,042	36,042
1967-----	37,878	37,878
Total-----	318,833	318,833

¹ The operation and maintenance payment required of the District in 1962 in the amount of \$12,000 deferred and will be paid in 40 equal consecutive annual installments, without interest or penalty, the first installment to fall due on Dec. 31, 1966.

strict water supply works operated by the United States; and for the succeeding 30 years it is to be \$23,500 annually, of which \$7,850 is the estimated construction component.

1952, June 16: Interim contract 14-06-600-5 with Angostura Irrigation District, providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. No water was delivered under this contract.

1953, May 7: Interim contract 14-06-600-321 with Angostura Irrigation District, providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$3,221.67, which have been credited to the incidental cost of furnishing such water during the construction period.

1954, March 31: Interim contract 14-06-600-697 with the Angostura Irrigation District, providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$14,651.34, which have been credited to the incidental cost of furnishing such water during the construction period.

1955, May 16: Interim contract 14-06-600-1486 with the Angostura Irrigation District, providing for furnishing some, but not all, of the lands with irrigation water at the rate of \$1 per acre-foot. Payments made under this contract totaled \$14,035.06, which have been credited to the incidental cost of furnishing such water during the construction period.

1962, April 30: Contract 179r-1974, amended to defer payment of 1962 water charges, which will be paid in 40 equal annual installments beginning on December 31, 1966.

1965, August 4: Contract 179r-1974, amendment 4, providing for the transfer of O&M of the water supply and distribution works to the irrigation district; designation of water supply works and allocation of O&M costs to functions; variable repayment formula with assessments by land classes; and deferring 1966 and 1967 construction charges with repayment in 38 annual installments beginning on December 31, 1968.

1967, October 27: Contract 179r-1974, amendment 4, supplement 1, providing for the Bureau of Reclamation to furnish managerial services to the irrigation district from January 1, 1968, through December 31, 1970, on a reimbursable basis.

Summary of status of repayment portion of contract:

Total value of contracted repayment	\$718,000
Total matured charges	23,610
Total matured charges repaid	23,610
Total matured charges unpaid	0

The Angostura Irrigation District took over the operation and maintenance of the unit in 1968.

ARMEL UNIT—UPPER REPUBLICAN DIVISION, COLORADO

The Armel unit, formerly known as the St. Francis unit, is located in Yuma County in northeastern Colo-

rado. The principal features are the Bonny Dam and Reservoir, Armel pumping plant, and a canal and lateral system to serve 6,000 acres of land currently dry-farmed. The unit also contains 750 acres of irrigated land requiring a supplemental water system.

Bonny Dam and Reservoir, authorized by the Flood Control Act of 1944 (58 Stat. 887) was completed in 1951 and currently is being operated by the United States primarily for flood control. Substantial benefits, as anticipated, are accruing to fish and wildlife and to recreation. Public use of this facility has exceeded expectations. Since 1951, irrigation water, stored in the reservoir and currently surplus to project needs, has been made available on an annual basis and water-rate charge to those irrigators under the existing Hale Ditch who have streamflow rights and are in need of supplemental water supplies.

The total construction cost is \$13,302,578, of which \$9,333,000 is tentatively allocated to flood control, and \$637,000 to fish and wildlife as nonreimbursable, and \$3,182,578 to irrigation, and \$150,000 to recreation as reimbursable. Construction of the irrigation features of the Armel unit has been deferred and will require reauthorization pursuant to the act of August 14, 1964 (Public Law 88-442).

CONTRACTS

1960, August 23: Contract 14-06-700-2308 with Mr. T. S. Yenter for the transportation of not to exceed 4.54 cubic feet per second of water through Bonny Dam and Reservoir at a rate of \$1.30 per acre-foot of water for a period of 40 years—thereafter, the charge to be a proportionate share of the O&M of the outlet works.

1966, June 17: Contract 14-06-700-6208 with Midwest Oil Corp. for replacement water from Bonny Dam of not to exceed 3,000 acre-feet each year. The corporation will pay a \$2,500 readiness-to-serve charge each year which will entitle the corporation to 200 acre-feet of water. Additional water if available will be furnished to the corporation upon request at the rate of \$12.50 per acre-foot. The contract is a service type contract for a term of 13 years, and is renewable for successive periods of not to exceed 5 years each.

1966, August 1: Contract 14-06-700-6250 with Livingston Oil Co. for replacement water from Bonny Dam of not to exceed 300 acre-feet each year. The company will pay \$250 readiness-to-serve charge each year, which will entitle the company to 20 acre-feet of water. Additional water if available will be furnished the company upon request at the rate of \$12.50 per acre-foot. The contract is a service type contract for a term of 13 years, and is renewable for successive periods of not to exceed 5 years each.

BOSTWICK DIVISION, NEBRASKA-KANSAS

The Bostwick division is located about midway east and west along the Nebraska-Kansas State line. About 72 percent of the irrigable area lies south of the line in Kansas.

Harlan County Dam and Reservoir, a multi-purpose facility on the Republican River in Nebraska, was completed in 1952 by the Corps of Engineers under the Flood Control Acts of 1941 and 1944. It provides the principal source of storage water for irrigation in the division. Lovewell Dam and Reservoir on White Rock Creek in Kansas was completed by the Bureau in 1957, and provides irrigation storage, irrigation regulation, and flood control.

Construction of the proposed Scandia Diversion Dam, Scandia Canal and laterals, and the drainage works to serve 13,000 irrigable acres in the Scandia unit, will require reauthorization pursuant to act of August 14, 1964 (Public Law 88-442).

The estimated total cost for the entire division is \$92,862,854, of which \$46,436,600 is the Corps of Engineers' cost of the Harlan County Dam and Reservoir.

Cost:

Lovewell Dam and Reservoir	\$6,278,653
Superior-Courtland Diversion Dam	1,890,423
Superior irrigation facilities	3,058,774
Courtland irrigation facilities	13,328,803
Franklin irrigation facilities	7,673,210
White Rock irrigation facilities	2,226,951
Other irrigation facilities	5,432,960
Floodway channels	991,336
Other property	7,798
Balance to complete	4,469,321
Total, plant, property, and equipment	45,358,229

Corollary costs:

Transitional development costs	112,793
Future year capacity	248,914
Property transfers	284,718
Irrigation pumping suballocation	421,600
Total cost	46,426,254
Cost assumed from Corps of Engineers'	
Harlan County Dam and Reservoir	46,436,600
Total	92,862,854

Of the total division cost of \$92,862,854, the reimbursable allocation to irrigation is \$54,476,294, and to recreation is \$46,262. The nonreimbursable allocation includes \$653,898 for fish and wildlife, \$200,000 for recreation, and \$37,486,400 for flood control.

Summary of status of repayment contracts (both districts):

Total value of construction charge obligations	\$9,786,000
Total matured charges	229,083
Total matured charges repaid	229,083
Total matured charges unpaid	0

In addition, \$129,862 has been paid by the irrigation districts pursuant to water service contracts.

BOSTWICK IRRIGATION DISTRICT—NEBRASKA

The irrigation facilities in the Nebraska portion of the Bostwick division are complete. The principal features include the Superior-Courtland Diversion Dam, Superior Canal and laterals, Courtland Canal and laterals in Nebraska, Franklin Canal and laterals, Franklin South Side Canal and laterals, Napone Canal and laterals, and a portion of the drainage works. Bostwick Irrigation District in Nebraska assumed operation and maintenance of canals and laterals in 1957.

In the Nebraska portion of the Bostwick division, 18,538 acres were irrigated in 1969, producing crops with a total gross value of \$2,407,947 for an average of \$129.89 per acre. The irrigable area for service is 22,787 acres.

Repayment contracts.—Bostwick Irrigation District (Nebraska)—The contract of February 21, 1949, as amended August 9, 1965, provides for a construction charge obligation of \$4,005,000 to cover the cost of distribution works and drainage works. This obligation is payable in 40 equal annual installments following a 10-year development period. Water-service charges under this contract provide for a construction component to be applied on the cost of the water supply works. It is estimated that this component will produce a total of \$1,940,000 over a 50-year period.

Development period—Nebraska.—Development period (10 years) for 22,787 irrigable acres commenced January 1, 1957, and ended December 31, 1966.

Operation and maintenance.—The Bostwick Irrigation District (Nebraska) assumed operation and maintenance responsibility for its distribution works on January 1, 1957. The multipurpose Harlan County Dam and Reservoir is operated and maintained by the Corps of Engineers, with 25.8 percent of the cost being advanced by the Bostwick Irrigation District (Nebraska), and with 74.2 percent derived from current annual appropriations for the nonreimbursable flood control function.

WATER SERVICE AND REPAYMENT CONTRACTS

1949, February 21: Combined water service and repayment contract I81r-1079 with Bostwick Irrigation District (Nebraska) for 40-year repayment of \$2,260,000, estimated cost of distribution and drainage works. Initial delivery of water in 1954 under temporary water rental arrangements.

1954, November 10: Amendment to contract I81r-1079 with the Bostwick Irrigation District (Nebraska). This amendment increased District repayment obligation from \$2,260,000 to \$3,105,000 and provides that on or before May 1 of each year the District will pay \$6,700 for

41,500 acre-feet of water; additional water to be made available upon payment at rate of \$1 per acre foot; construction of additional drainage works estimated to cost \$900,000 to be accomplished by District; emergency O&M reserve fund to be created and maintained by District increased from \$20,000 to \$50,000.

1960, May 3: Amendment No. 2 to contract I81r-1079 with the Bostwick Irrigation District (Nebraska) provided right of renewal of 40-year water service part of existing contract upon its expiration; and use, at option of District, of a variable repayment plan based on agricultural price index and parity price ratio.

1963, August 9: Amendment to contract I81r-1079 with the Bostwick Irrigation District (Nebraska). Repayment obligation increased from \$3,105,000 to \$3,520,000, payable over a period of 40 years, to include an increase of \$415,000 for the construction of drains. Payments are due one-half on or before July 1 and one-half on or before November 1, and payments for water service are due in advance of delivery of water each year. The development period was extended to 10 years.

1968, December 2: Letter agreement with Bostwick Irrigation District (Nebraska) regarding interpretation of articles 13 and 14 of the contract to provide for United States construction of not to exceed \$485,000 of additional drainage works and for District repayment obligation to be increased in an amount not to exceed \$485,000. The total maximum repayment obligation of the District became \$4,005,000, which will be repaid over a 40-year period.

CONSTRUCTION REPAYMENT HISTORY—BOSTWICK IRRIGATION DISTRICT (NEBRASKA)

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1967-----	\$3,520,000	\$32,050	-----	\$32,050	\$32,050	-----	\$32,050	\$32,050
1968-----	3,520,000	66,560	-----	66,560	66,560	-----	66,560	98,610
1969-----	4,005,000	62,327	-----	62,327	62,327	-----	62,327	160,937
Total -----		160,937	-----	160,937	160,937	-----	160,937	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—BOSTWICK IRRIGATION DISTRICT (NEBRASKA)

Fiscal year	Accruals	Collections
1967-----	\$1,874	\$1,874
1968-----	1,437	1,437
1969-----	4,568	4,568
Total -----	7,879	7,879

KANSAS-BOSTWICK IRRIGATION DISTRICT NO. 2

Most irrigation facilities in Kansas have been com-

pleted. Water can be delivered to 39,388 acres in the Kansas-Bostwick Irrigation District No. 2. The principal facilities included the Courtland Canal and laterals, the North Canal and laterals, the Ridge Canal and laterals, the White Rock Canal and laterals, the White Rock Extension Canal and laterals, the Miller Canal and laterals, Courtland West Canal and laterals, Pump Areas No. 1 and 4, and a portion of the drainage works. Facilities not completed include Pump Area No. 2 and certain drainage works.

A total of 25,433 acres in Kansas was irrigated in 1969, producing crops with a total gross value of

\$3,554,141 for an average of \$139.75 per acre. The irrigable area for service is 39,388 acres.

Repayment contracts.—Kansas-Bostwick Irrigation District No. 2—The contract of April 20, 1951, as amended April 18, 1960, and August 9, 1963, provides for water-service charges and for a construction charge obligation of \$5,781,000 to cover the cost of the distribution works and that portion of the drainage works required immediately. The obligation is payable in 40 equal annual installments, by irrigation blocks, following a 10-year development period. Water-service charges under this contract include a construction component to be applied on the cost of the water supply works. The construction component payable under the water service part of the contract, and a subsequent renewal thereof, is estimated to repay a total of \$2,486,650 in 50 years in addition to \$5,781,000. The District also will construct with its own funds future drainage works as required at the estimated cost of \$1,961,000.

Development Periods.—Kansas.—Block I: Irrigable acreage for service, 10,042. 10-year development period commenced January 1, 1957, and ended December 31, 1966. Block II: Irrigable acreage for service, 21,317. 10-year development period commenced January 1, 1960, and ended December 31, 1969. Block III: Irrigable acreage for service, 1,407. 10-year development period commenced January 1, 1961, and ended December 31, 1970. Block IV: Irrigable acreage for service, 5,002. 10-year development period commenced January 1, 1962, and ends December 31, 1971. Block V: Irrigable acreage for service, 3,380. 10-year development period commenced January 1, 1969, and ends December 31, 1978.

Operation and Maintenance.—Kansas-Bostwick Irrigation District No. 2 assumed operation and maintenance of diversion and distribution works as they were completed during the years 1957 through 1961. By agreement with the Bostwick Irrigation District (Nebraska), the Kansas-Bostwick Irrigation District No. 2 also operates and maintains the Courtland Canal in Nebraska, which serves lands in both Nebraska and Kansas.

The multi-purpose Lovewell Dam and Reservoir is operated and maintained by the Bureau of Reclamation, with 31.4 percent of the cost being advanced by the Kansas-Bostwick Irrigation District No. 2 and with 68.6 percent derived from current annual appropriations for the nonreimbursable flood control function.

WATER SERVICE AND REPAYMENT CONTRACTS

- 1951, April 20: Combination water service and repayment contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2 provided for a maximum repayment obligation of \$3.5 million to cover cost of construction of distribution and drainage works, to be paid in equal annual installments over a 40-year period following a 5 year development period. Initial delivery of water was made in 1954 under temporary water rental arrangements.
- 1956, September 1: Amendment No. 1 to contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2 provided for District acquisition of lands required for the construction, operation, and maintenance of the water supply and distribution works to serve the District.
- 1957, April 24: Amendment No. 2 to contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2 which: (1) increased repayment obligation from \$3,500,000 to \$5,781,000, payable in 40 years; (2) provided for payment of \$17,200 annual water service charge for 69,000 acre-feet of water, with additional water to be paid for in advance at the rate of \$1 per acre-foot; and (3) increased emergency O&M reserve fund to be maintained by District from \$20,000 to \$40,000.
- 1960, April 18: Amendment No. 3 to contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2 provided for: (1) transfer to District of responsibility for operation and maintenance of water supply works and distribution works serving blocks I and II; and (2) use, at the District's option, of a variable repayment plan based on agricultural price index and parity price ratio.
- 1961, March 16: Supplement to contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2 provided for deferment of 1962 and 1963 construction charges of \$38,430 each for block I lands. Deferred amount to be rescheduled for payment in equal annual installments during the last 35 years of the 40-year repayment period for block I.
- 1962, December 6: Drainage and minor construction contract No. 14-06-700-3280 with Kansas-Bostwick Irrigation District No. 2, providing for District installation of earth lining in canals serving the district at a cost of not to exceed \$200,000. The United States will reimburse the District for the cost of work on a monthly basis as the work progresses. The cost of the work will be repaid to the United States as part of the District's \$5,781,000 distribution and drainage works construction obligation, payable over a 40-year period pursuant to contract Ilr-1584, as amended.
- 1963, August 9: Amendment to contract Ilr-1584 with Kansas-Bostwick Irrigation District No. 2. Extended the development period to 10 years for each irrigation block. The District's annual water service charge was fixed so that upon completion of the development period for all irrigation blocks the annual water service charge will be \$35,500. Of this amount, \$17,200 will go to cover the District's share of the cost of operation and maintenance of water supply works operated and maintained by the United States and \$18,300 will be applied on the construction cost of the water supply works. Whenever the annual operation and maintenance costs of the supply works allocable to the District exceed \$17,200, the Dis-

tract will advance funds to the United States sufficient to cover the increased cost of operation and maintenance each year and not diminish the \$18,300 payment to be applied on cost of water supply works. This replaces the arrangement in the 1957 amendment which provided for payment of \$1 per acre-foot for additional water over and above a three-fourths base supply.

1963, November 4: Amendment No. 1 to contract 14-06-700-3280 provides for broadening the scope of the work to be performed by the Kansas-Bostwick Irrigation District No. 2 to also include drainage and other minor construction work.

1965, June 16: Contract 14-06-700-5012 with Kansas-Bostwick Irrigation District No. 2, providing for District performance of an additional \$200,000 of D&MC work, making a total of \$400,000 when December 6, 1962, contract is included.

1965, August 17: Amendment to contract 14-1584 with Kansas-Bostwick Irrigation District No. 2. Changes the date when payments on distribution and drainage construction obligation become due to one-half due on or before July 1 and one-half due on or before November 1. Payments for water service are due in advance of delivery of water each year.

CONSTRUCTION REPAYMENT HISTORY—KANSAS-BOSTWICK IRRIGATION DISTRICT NO. 2

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1967-----	\$5,781,000	\$13,674	-----	\$13,674	\$13,674	-----	\$13,674	\$13,674
1968-----	5,781,000	28,334	-----	28,334	28,334	-----	28,334	42,008
1969-----	5,781,000	26,138	-----	26,138	26,138	-----	26,138	68,146
Total--	-----	68,146	-----	68,146	68,146	-----	68,146	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—KANSAS-BOSTWICK IRRIGATION DISTRICT NO. 2

Fiscal year	Accruals	Collections
1967-----	\$8,712	\$8,712
1968-----	13,515	13,515
1969-----	19,474	19,474
Total-----	41,701	41,701

BOYSEN UNIT—BOYSEN DIVISION, WYOMING

Boysen Dam was authorized by the Flood Control Act of 1944 (58 Stat. 887). The Boysen unit includes a 15,000-kilowatt powerplant. It is designed to regulate the flow of the Bighorn River to furnish irrigation water for the Bighorn Basin division and, by replacement, for land above the reservoir; to produce both firm and secondary electric energy; to provide flood control; to provide fish and wildlife and recreational values; and to desilt the water which is turbid the year-round.

Boysen unit was one of the first units of the Missouri River Basin project to be selected for construction. Initial work on the unit was begun in July 1946 and construction of Boysen Dam was started in September

1947. The Boysen unit is located in Fremont County, westcentral Wyoming, on the Wind (Bighorn) River, about 20 miles south of Thermopolis. The dam was completed and closure was made in October 1951. The powerplant was completed in 1952; one generating unit was placed in operation in August of that year, and the second in December of that year.

The cost of the features of Boysen unit are:

Boysen Dam and Reservoir	\$27,583,266
Boysen camp and facilities	420,294
Boysen Powerplant	4,586,258
Boysen switchyard	896,006
Interest during construction	342,416
Balance to complete	6,000

Total, plant, property, and equipment 33,834,240

Allocation of the total unit cost is as follows:

Reimbursable:	
Irrigation	20,466,003
Power, excluding irrigation pumping	5,480,948
Total reimbursable	25,946,951
Nonreimbursable:	
Flood control	7,887,289
Total, Boysen unit	33,834,240

Repayment of reimbursable costs is anticipated to be made as follows:

Irrigation allocation:

Hanover Bluff unit	\$1,379,854
Owl Creek unit	417,743
Future irrigation development	17,439,488
Irrigation pumping	1,228,918
Total	20,466,003

Power allocation:

Net revenues from sale of power	5,378,755
Miscellaneous income	102,193
Total	25,946,951

The unit is operated by the Bureau of Reclamation with appropriated funds. Revenues from the sale of power are covered into the Reclamation Fund for retirement of project costs.

CANYON FERRY UNIT—HELENA—GREAT FALLS DIVISION, MONTANA

The Canyon Ferry unit is located in westcentral Montana about 50 miles downstream from where the Galatin, Madison, and Jefferson Rivers join to form the Missouri River. It is a multipurpose development planned for the control of floods, the generation of electric power, conservation of fish and wildlife, and recreational benefits. It is the key feature in the plan to irrigate approximately 310,000 acres of new land and provide supplemental water for approximately 160,000 acres in other units of the Upper Missouri Basin area. Water is currently being furnished to the Crow Creek Pump and Helena Valley units for irrigation and municipal water purposes.

The facilities of the unit are the Canyon Ferry Dam, Reservoir, Powerplant, and switchyard. The dam is a 225-foot concrete structure with a crest length of 1,000 feet. The maximum reservoir capacity is 2,051,000 acre-feet. The powerplant has an installed generating capacity of 50,000 kilowatts in three 16,667-kilowatt generating units. The switchyard provides for lines to East Helena, Three Forks, and other feature outlets. Two 115,000-volt lines deliver the entire output of the plant to the East Helena area.

The dam was begun in May 1949 and completed in June 1954. Storage began in December 1951 and the first power was generated in December 1953. Operation is by the Bureau of Reclamation with appropriated funds. Approximately 39 percent of operating costs are currently assignable to flood control and are nonreimbursable. The balance of the operating costs are reimbursed from power, irrigation, and municipal water revenues.

The total cost of the unit is \$30,578,803, allocated \$4,592,943 to irrigation; \$4,023,936 to pumping

power; \$16,748,989 to commercial power; \$48,472 to municipal water; \$46,080 to reimbursable recreation; \$3,358 and \$5,054,364 to nonreimbursable fish and wildlife and flood control, respectively; and \$60,661 operation and maintenance equipment costs. Included in the total cost are costs assigned to other Missouri River Basin units: Municipal and industrial water—Helena Valley unit, \$48,472; irrigation—Helena Valley unit, \$727,982; East Bench unit, \$557,124; Crow Creek unit, \$128,602; and future development, \$3,179,234. Revenues from the sale of power are covered into the Reclamation fund to defray reimbursable operating costs not assignable to irrigation and municipal water and the reimbursable construction costs not covered by contracted repayment.

CEDAR BLUFF UNIT—SMOKY HILL DIVISION, KANSAS

The Cedar Bluff unit, authorized under the Flood Control Act of 1944 (58 Stat. 887), is located in Trego and Ellis Counties, Kansas. It is a multipurpose unit which provides storage for irrigation and municipal water, flood control for downstream areas, fish and wildlife conservation, and recreational opportunities.

Cedar Bluff Dam and Reservoir on the Smoky Hill River were completed in 1951. The irrigation facilities, which include Cedar Bluff Main Canal and laterals, were completed in 1963.

A fish hatchery constructed by the U.S. Fish and Wildlife Service immediately below Cedar Bluff Dam uses 4,000 acre-feet of water per year. A supplemental municipal water supply is furnished the city of Russell, Kans.

Total estimated project cost is allocated as follows:

Cedar Bluff Dam and Reservoir	\$13,925,210
Irrigation plant	3,613,531
Balance to complete	344,956

Total plant, property, and equipment	17,883,697
Settlers assistance	33,733
Property transfers	54,177

Total cost	17,971,607
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Allocation:

Reimbursable:

Irrigation	8,348,607
Recreation	16,000
Municipal water	67,400

Nonreimbursable:

Flood control	8,381,700
Fish and wildlife	1,157,900

17,971,607

The District assumed operation and maintenance responsibility for the distribution works on January 1, 1965. The multipurpose Cedar Bluff Dam and Reservoir is operated and maintained by the Bureau of Reclamation, with 20.4 percent of the cost being advanced by the Cedar Bluff Irrigation District, 1.5 percent advanced by the City of Russell, Kans., and 78.1 percent from current annual appropriations for the nonreimbursable flood control and fish and wildlife functions.

A total of 6,235 acres were irrigated in 1969, producing crops with a total gross value of \$587,504 for an average of \$94.23 per acre. The irrigable area for service is 6,600 acres.

Repayment contracts.—A combination water-service and construction repayment contract with the Cedar Bluff Irrigation District No. 6 was signed September 3, 1959. The construction charge obligation is payable in 40 equal annual installments. Development period began on January 1, 1965, and ends on December 31, 1974. During a 50-year repayment period, water service payments by the District pursuant to its 1959 contract, and a future renewal of the water service portion thereof, are expected to cover the District's share of Cedar Bluff Reservoir O&M costs and return an estimated \$362,320 to apply on the construction cost of the water supply works serving the District. The reimbursable construction cost of water supply works in excess of water user ability to pay will be returned from surplus power revenues of the Missouri River Basin project.

The District has assumed the responsibility for construction of drains in the estimated amount of \$153,000. A municipal water supply contract with the city

of Russell, Kans., executed April 23, 1963, provides that the city repay to the United States the principal amount of \$67,400, with interest at the rate of 2½ percent per annum, amortized in 40 successive annual amounts of \$2,700 each.

Summary of status of repayment contract:

Irrigation—Cedar Bluff Irrigation District No. 6:

Total value of construction charge obligations .. \$730,680

Total matured charges 0

Municipal and Industrial Water—City of Russell, Kans.

Total value of construction charge obligations .. 67,400

Total matured charges 7,659

Total matured charges repaid 7,659

Total matured charges unpaid 0

CONTRACTS

1959, September 3: Combined water service and repayment contract 14-06-700-2118 with Cedar Bluff Irrigation District No. 6 for \$709,280 for 40 years. Payments on construction obligation are due one-half on or before March 1 and one-half on or before August 31. Payments for water service are due and payable in advance of delivery of water each year. Water service charges—\$5,000 plus \$1 per acre-foot for water in excess of 11,300 acre-feet.

1963, April 23: Contract 14-06-700-3930 with the city of Russell, Kans., for municipal water, written pursuant to section 9(c)(1) of 1939 act, provides for a construction obligation of \$67,400, with interest at 2½ percent, payable in 40 equal annual installments of \$2,700. The city is to be furnished not to exceed 2,000 acre-feet annually and is to pay 1½ percent of cost of operating Cedar Bluff Dam, Reservoir, and appurtenant works.

1969, October 27: Amendment No. 1 of contract with Cedar Bluff Irrigation District extended development period to 10 years, increased irrigable area to 6,800 acres, and increased District's repayment obligation to \$730,680.

CONSTRUCTION REPAYMENT HISTORY—CITY OF RUSSELL, KANS.

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1964-----	\$67,400	\$2,055	-----	\$2,055	\$2,055	-----	\$2,055	\$2,055
1965-----	67,400	1,066	-----	1,066	1,066	-----	1,066	3,121
1966-----	67,400	1,093	-----	1,093	1,093	-----	1,093	4,214
1967-----	67,400	1,120	-----	1,120	1,120	-----	1,120	5,334
1968-----	67,400	1,148	-----	1,148	1,148	-----	1,148	6,482
1969-----	67,400	1,177	-----	1,177	1,177	-----	1,177	7,659
Total--	-----	7,659	-----	7,659	7,659	-----	7,659	-----

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—CEDAR BLUFF UNIT—CITY OF RUSSELL,
KANSAS

Fiscal year	Accruals	Collections
1964-----	\$654	\$654
1965-----	277	277
1966-----	389	389
1967-----	334	334
1968-----	430	430
1969-----	443	443
Total-----	2,527	2,527

**CROW CREEK PUMP UNIT—
THREE FORKS DIVISION, MONTANA**

This unit was authorized by the Flood Control Act of December 22, 1944. It is located in Broadwater County, central Montana, about 47 miles southeast of Helena and 13 miles south of Townsend. Construction was initiated in connection with the Canyon Ferry unit to replace irrigated land inundated by Canyon Ferry Reservoir as provided in the 1949 and subsequent appropriation acts. It is planned that this unit will ultimately become a part of the proposed Jefferson unit.

The principal features include the Crow Creek Pumping Plant, the Toston Tunnel, Toston Canal, Lombard Canal, and the lateral and drainage systems. There are some 11 miles of canal, 10 miles of laterals, 5 miles of drains completed and 6 miles planned for ultimate construction. Water is pumped from the west bank of the Missouri River and flows through the Toston Tunnel to the Toston Canal, thence to the Lombard Canal for distribution to project land. The 5,007 irrigable acres of land in the Crow Creek Pump unit require an average annual diversion of about 18,000 acre-feet at a maximum pump capacity rate of 100 cubic feet per second.

The total estimated cost of the Crow Creek unit as of June 30, 1969, was \$1,825,505, including \$128,602 assigned Canyon Ferry unit costs.

Construction of the irrigation facilities began in September 1952, and was completed in October 1954. Water was first available in 1955.

In 1969, there were 4,630 acres irrigated, with a total value of \$594,629, which is \$128.43 per acre. The cumulative gross crop value from 1955 through 1969 amounts to \$4,828,004.

The Crow Creek Pump unit was transferred to operation and maintenance status on February 1, 1955, and is operated and maintained by the Bureau of Reclamation with funds advanced by the water users.

Repayment contracts.—A short term contract, dated August 12, 1955, was entered into with the Toston Irrigation District pursuant to the special authorizing act of August 12, 1955 (69 Stat. 697). Under this contract, the United States furnishes water to the District on a year-to-year basis through 1964.

A water service and repayment contract was entered into with the District on April 28, 1965, providing for a full water supply for 5,031 irrigable acres and for the repayment of \$150,000 of the cost of the distribution system works. This contract became effective January 1, 1965, with construction charge payments to begin in 1973. The base annual charge is \$3,750 for a 40 year period. The annual water service charge after the development period is the cost of operating the water supply works plus \$250. The development period ends December 31, 1972.

CONTRACTS

1955, August 12: Contract 14-06-600-1646 with Toston Irrigation District. Interim contract not to exceed 10 years pursuant to special authorizing act. Water is furnished on a year-to-year basis.

1965, April 28: Contract 14-06-600-8734 with Toston Irrigation District. Water service 40 years, beginning January 1, 1965. Distribution system repayment 80 successive semiannual payments of \$1,875, beginning in 1973.

Summary of status of repayment contracts:

Total value of contracted repayment	\$150,000
Total matured charges	0

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1956-----	\$4,482	\$4,482
1957-----	9,645	5,895
1958-----	9,500	13,250
1959-----	8,566	8,566
1960-----	8,958	8,958
1961-----	10,616	10,616
1962-----	11,703	11,703
1963-----	12,698	12,698
1964-----	12,577	12,577
1965-----	24,083	24,083
1966-----	13,031	13,031
1967-----	25,773	25,773
1968-----	25,564	25,564
1969-----	28,556	28,556
Total-----	205,752	205,752

**DICKINSON UNIT—HEART DIVISION,
NORTH DAKOTA**

The Dickinson unit is located in Stark County ir

southwestern North Dakota. It is a multipurpose unit which provides storage for irrigation and municipal water, flood control, fish and wildlife conservation, and recreational opportunities.

The Dickinson Dam is a rolled earthfill dam, 62 feet high and 2,275 feet across the crest, with a combined concrete spillway and outlet structure. Construction began in March 1949 and was completed in March 1950. The reservoir, Edward Arthur Patterson Lake, has a storage capacity of 6,676 acre-feet. Storage began in March 1950 and water was available in 1952.

Water service is provided for the irrigation of approximately 400 acres downstream. The water users, organized under the Dickinson-Heart River Mutual Aid Corp., have constructed their own pumping plants and distribution systems. Water is furnished at the rate of \$400 per annum for 400 acre-feet, with additional water not to exceed 500 acre-feet at 50 cents per acre-foot. The corporation's right to receive water is subordinate to the city of Dickinson's right to receive annually not more than 1,100 acre-feet of water. During the calendar year 1969, 310 acres were irrigated, with a total crop value of \$15,770 or an average per acre value of \$50.87.

The original water service contract with the city of Dickinson provided for the delivery of 1,100 acre-feet of water annually for domestic, commercial, industrial, and municipal purposes. This contract has since been amended to make 900 acre-feet of additional water available to the city.

The total cost of the unit including \$161,294 extraordinary loss applicable to emergency spillway repair is \$1,652,842, allocated \$262,523 to irrigation, \$1,010,206 to municipal and industrial water, \$40,644 to recreation, \$160,202 to nonreimbursable fish and wildlife, \$17,973 to nonreimbursable flood control, and \$161,294 reimbursable as operation and maintenance. The current estimate of the repayment of reimbursable costs is as follows:

By municipal water users	\$1,010,206
By irrigation water users	5,000
By surplus basinwide revenues	293,754

Operation of the dam and reservoir is by the city of Dickinson under an agreement with the Bureau of Reclamation, with financing from appropriated funds. Eighty-eight and one-half percent of the operating costs are reimbursed from water service revenues, the balance being allocated to nonreimbursable fish and wildlife benefits.

Repayment contracts.—The semiannual payments

under the city's 1949 contract vary from \$7,500 in the first 5 years of water availability to \$16,250 in the last 5 years. Current payments are at the rate of \$11,250 semiannually. Of the \$334,896 service charges paid to June 30, 1969, \$91,066 have been needed to defray operation and maintenance costs, leaving a construction component of \$243,830. The entire revenue from irrigation water service to date has been required to meet the irrigation share of operation and maintenance costs.

CONTRACTS

1949, September 24: Water service contract I79r-1412 with city of Dickinson, N. Dak., for 40 years, payable semiannually. The 80 payments will yield a return of \$950,000, of which \$120,000 is estimated to be required for operation and maintenance and replacement and \$830,000 is estimated to be available for application to construction costs. Initial water delivery in May 1952.

1957, April 1: Water service contract 14-06-600-2333 with the Dickinson-Heart River Mutual Aid Corp., Dickinson, N. Dak., payable in 40 years. \$400 each year for 400 acre-feet, and 50 cents for each additional acre-foot per year, not to exceed 500 additional acre-feet in any 1 year.

1962, May 8: Supplement No. 1 to water service contract I79r-1412 with city of Dickinson, N. Dak. \$17.50 per acre-foot of additional water up to 900 acre-feet delivered in any 1 year for 40 years.

Annual operation and maintenance.—The annual income and expense by fiscal years under water service contracts for irrigation and municipal water are:

Fiscal year	Irrigation		Municipal water ²	
	Income	Expense	Income	Expense
1952-----	\$250	\$338	\$15,000	\$1,355
1953-----		236	15,000	764
1954-----		220	15,000	942
1955-----	118	202	15,000	958
1956-----	100	509	15,000	2,696
1957-----	400	769	16,250	3,504
1958-----	400	464	17,500	5,932
1959-----	438	468	17,500	6,280
1960-----	440	408	17,500	4,903
1961-----	427	473	17,500	5,984
1962-----	463	394	18,750	5,900
1963-----	¹ 400	536	20,000	5,881
1964-----	400	522	21,988	7,413
1965-----	417	546	22,730	6,126
1966-----	400	532	20,507	5,849
1967-----	400	420	22,013	7,399
1968-----	400	396	26,052	³ 10,832
1969-----	400	400	29,296	8,348
Total-----	6,153	7,833	342,586	91,066

¹ Excess of expense over income collectible next fiscal year.

² Expenses for municipal water years 1956 to 1969 include a charge varying from a minimum of \$1,788 in 1956 to a maximum of \$3,964 in 1962, covering property losses chargeable to operations.

³ Includes \$1,753 prior year adjustments.

EAST BENCH UNIT—THREE FORKS DIVISION, MONTANA

The principal features of the East Bench unit, located in southwestern Montana along the Beaverhead River, are the Clark Canyon Dam and Reservoir, Barratts Diversion Dam, East Bench Canal, and a lateral system and drainage system. Surplus water from Red Rock River and Horse Prairie Creek are stored in Clark Canyon Reservoir. Water is released during the irrigation season into the Beaverhead River for irrigation of unit lands and to supply supplemental water to 28,004 acres of other downstream lands. Barratts Diversion Dam diverts water into the previously existing Canyon Canal and into the East Bench Canal. All users of supplemental water, including those served by the Canyon Canal, divert water through private ditches. The East Bench Canal, beginning at Barratts Diversion Dam, traverses the bench area paralleling the Beaverhead River in a northerly direction and furnishes water to the lands within the unit.

Clark Canyon Reservoir is located on the Beaverhead River just below the junction of Horse Prairie Creek and Red Rock River and has an active storage capacity of 255,643 acre-feet. Clark Canyon Dam, completed in 1964, is a zoned earthfill structure with a crest length of 2,900 feet and a structural height of 147.5 feet. Barratts Diversion Dam, completed in 1963, has a gated overflow weir and an embankment wing to divert water through the Canyon Canal and East Bench Canal headworks.

East Bench Canal is 44.2 miles long with a diversion capacity of 440 cubic feet per second. There are about 25 laterals, varying in length from 170 feet to 7 miles and in capacity from 5 to 126 cubic feet per second. Some of the 21,800 acres of irrigable land within the unit are served directly from turnouts in the East Bench Canal. All the principal construction except the drainage system has been completed.

Water was first delivered to supplemental lands and to lands within the unit in 1965. During 1969, 47,896 acres were irrigated, 20,806 acres with a full water supply and 27,090 acres with a supplemental water supply. The total crop value was \$2,767,873, or an average per acre value of \$57.79. The cumulative gross value from 1965 to 1969 amounted to \$9,473,481.

The estimated cost of construction of the East Bench unit, including Canyon Ferry costs of \$557,124, is \$25,062,385, allocated \$20,259,631 to irrigation, \$128,486 to reimbursable recreation, \$1,392,799 to nonreimbursable fish and wildlife, \$3,197,486 to nonreimbursable flood control and O&M administration, and

\$83,983 equipment costs that will be repaid as a part of O&M. \$3,835,000 of the \$20,388,117 reimbursable costs will be repaid by the water users, \$34,351 from contributions and miscellaneous revenues and \$16,518,766 from Missouri River Basin project power revenues.

Repayment contracts.—The contract with the East Bench Irrigation District is a combined water service and repayment agreement. The District has contracted to repay \$1,744,000 of the cost of construction of the distribution system, payment to be in 80 equal consecutive semiannual installments of \$21,800, beginning on December 1 of the year following the end of the development period. The water service part of the contract obligates the District to pay its share of the annual costs of operating and maintaining the supply works and an annual payment of \$0.25 for each irrigable acre during the initial 40-year term following the development period. The 10-year development period will end December 31, 1975.

The Clark Canyon Water Supply Co. has assigned to the United States its entire interest in the installment promissory notes received by it for the purchase of Class B and C shares of stock in the company. The company is responsible for the custody and the collection of the installments on these notes and for transmitting the proceeds to the United States. The company's contract, 14-06-600-3592, is a 40-year water service agreement providing for an annual payment of \$29,000, and in addition, an advance of 36 percent of the cost of the annual operation and maintenance of the regulatory works assigned to irrigation. The 40-year service period began January 1, 1966.

CONTRACTS

1958, October 8: Contract 14-06-600-3593 with East Bench Irrigation District.

Part A—Water service, 40 years from date of water availability. During development period, payments consist of the District's share of the cost of operation and maintenance of water supply works. After the development period, the annual payments consist of such costs plus 25 cents per irrigable acre.

Part B—Distribution system, 80 equal consecutive semiannual payments of \$21,800 each (on a total obligation of \$1,744,000) following a 10-year development period.

1958, October 8: Contract 14-06-600-3592 with Clark Canyon Water Supply Co., Inc., provides 40-year service with payments of \$29,000 per year plus share of operation and maintenance cost of supply works.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,744,000
Total matured charges	0

FARWELL UNIT—MIDDLE LOUP DIVISION, NEBRASKA

The Farwell unit is in the Middle Loup division. It is located in Custer, Valley, Sherman and Howard Counties in central Nebraska. This unit was originally authorized by the Flood Control Act of 1944. However, adjustments and modifications of the original plan resulted in a resubmission of the unit plan which was reauthorized by act of August 3, 1956.

This unit has been developed to irrigate 47,925 acres of land previously dry-farmed. Principal features of the unit consist of the Sherman Dam and Reservoir, the Arcadia Diversion Works, 115 miles of main canals, 255 miles of laterals, 37 small and 1 large project pumping plants, 8 miles of drains and surface water disposal facilities to improve and protect natural drains and channels against erosion. This latter work will be performed by the Soil Conservation Service with transferred funds.

The total estimated project cost of the Farwell unit is \$34,580,000, of which \$338,000 is allocated to flood control and \$889,000 is allocated to fish and wildlife, both nonreimbursable. The balance of this total cost is reimbursable and is allocated to irrigation and recreation, of which \$33,178,000 is allocated to irrigation and \$175,000 to recreation.

Cost of features are:

Sherman Dam and Reservoir	\$5,318,358
Arcadia Diversion Works	2,995,437
Sherman feeder canal	6,197,204
Farwell canals	10,079,868
Farwell laterals	7,440,026
Other irrigation facilities	1,154,762
Balance to complete	1,173,943
Total irrigation plant	34,359,598
Property transfers	218,813
Settlers assistance	40,589
Irrigation pumping	274,000
Total	34,893,000
Costs assigned to Sargent unit	-313,000
	<u>34,580,000</u>

A total of 34,726 acres were irrigated in 1969, producing crops with a total gross value of \$5,050,870 for an average of \$145.45 per acre. The irrigable area for service is 47,925 acres.

Repayment contracts.—A repayment contract was

made with the Farwell Irrigation District on March 23, 1957. This contract is a part of interrelated water service, repayment, and operating arrangements among the Sargent Irrigation District, the Farwell Irrigation District, and the Loup Basin Reclamation District. The three interrelated contracts with the three districts were all executed March 23, 1957. Under this arrangement the Loup Basin Reclamation District, which includes both irrigation districts, has a water-service contract with the United States, and delivers water to the two irrigation districts under service contracts with each. The Loup Basin Reclamation District operates and maintains the water supply works serving each irrigation district and, under operating agreements with the two irrigation districts, also operates and maintains the distribution works of the two irrigation districts.

The repayment contract with the Farwell Irrigation District contains a construction charge obligation in the amount of \$6,734,000 to cover the costs of constructing the distribution works and the surface water disposal facilities. The District is to construct additional drainage facilities as required in the future. The Farwell District will pay its construction charge obligation over a 40-year repayment period following a 10-year development period. The development period commenced on January 1, 1966, and ends December 31, 1975.

Although the Farwell Irrigation District will not make any water-service payments directly to the United States, its potential share of the water-service payments to be made by the Loup Basin Reclamation District is estimated at \$4,328,500 during a 50-year repayment period. A portion of that payment will be obtained from an ad valorem tax applied to property in the reclamation district. The Middle Loup Public Power and Irrigation District, under a service contract with the United States providing for diversion and desilting of a part of the District's water supply through the Arcadia Diversion works of the Farwell unit, will make payments estimated to total \$123,500 during a 50-year repayment period. All water-service payments by the Loup Basin Reclamation District, both fixed annual charges and additional water charges, will constitute net returns to the United States to apply on the costs of constructing the water supply works.

Reimbursable construction costs in excess of the payment capacities of the districts will be amortized by power revenues from the Missouri River Basin project.

CONTRACTS

1957, March 23: Contract 14-06-700-1371 with the Loup Basin Reclamation District provides water service for the

Farwell and Sargent Irrigation Districts. The term of this contract is for 40 years and may be renewed on or before January 1 of the last year of this contract. On or before May 1 of each year the Reclamation District shall pay to the United States the sum of \$45,500 for a water supply of 113,500 acre-feet. Additional water, if available, may be purchased by the advanced payment of \$1 per acre-foot. Commencing with the first year in which water becomes available, the District within a 5-year period will accumulate a reserve fund of \$75,000.

1957, March 23: Contract 14-06-700-1372, original contract with the Farwell Irrigation District pertains to construction and O&M of the irrigation distribution works and a construction obligation of \$6,734,000, payable in 40 equal annual installments, due one-half on June 1 and one-half on October 1. Water-service arrangements for the Farwell lands are via contract with the Loup Basin Reclamation District, of which the Farwell Irrigation District is an integral part.

1960, August 17: Service contract 14-06-700-2296 with the Middle Loup Public Power and Irrigation District provides diversion and desilting service for waters owned by the District through facilities of the Farwell unit. For a period of 40 years the District is to pay \$0.10 per acre-foot of water service plus its proportionate share of the O&M of the facilities used in such service. It is estimated that this contract and its renewal for 10 years will provide net revenues in the amount of \$123,500.

1966, March 30: Amendment No. 1 to contract 14-06-700-1371 with the Loup Basin Reclamation District. Contract provides for deferment of the Farwell Irrigation District's pro rata share of the construction component of the 1966 annual water service charge. The amount deferred was \$34,863 and is to be paid in equal installments by the Loup Basin Reclamation District during the years 1976 through 1985.

1966, May 4: Amendment No. 1 to contract 14-06-700-1372 with the Farwell Irrigation District. Contract provides for:

- (1) extension of the development period from 5 to 10 years; and
- (2) reduction in emergency O&M reserve fund from \$100,000 to \$60,000, to be accumulated by the District at the rate of \$6,000 annually.

Summary of status of repayment contracts:

Total value of construction charge obligation	\$6,734,000
Total matured charges	0

FORT CLARK UNIT—PUMPING DIVISION, NORTH DAKOTA

Fort Clark unit is located in Oliver and Mercer Counties in westcentral North Dakota near the town of Stanton and about 45 miles northwest of Mandan. The purpose of the unit is to provide a full water supply for the irrigation of 1,996 acres of new land

lying on two benches along the Missouri River. Facilities of the unit consist of a river pumping plant, two relift plants, and a system of canals, laterals and drains. Construction of these facilities was begun in August 1952 and, except deferred drains, was substantially completed in August 1953. First water was available in 1954. During calendar year 1969, 1,244 acres were irrigated, with a total crop value of \$73,216 or an average value of \$58.86 per acre.

The cost of the unit including \$4,163 settlers assistance and \$3,834 property transfers is \$809,252, which is allocated to irrigation. Sixty-six thousand dollars of the amount allocated to irrigation is to be repaid by the irrigation district and the remainder by water service and surplus basinwide power revenues.

Facilities of the unit were operated by the Bureau of Reclamation until December 31, 1967, and then turned over to the Fort Clark Irrigation District for operation. The first annual construction charge payment was made on December 31, 1966.

Repayment and water-service contract.—A combination repayment and water-service contract with the Fort Clark Irrigation District provides for repayment of \$66,000 of distribution facilities construction cost in the 40 years following the 10-year development period. The water service part of the contract requires payment of the annual operation and maintenance cost of the supply works during the first 10 years of the 40-year contract period. During the next 30 years the annual payments are fixed charges not less than the cost of operation and maintenance of water supply works.

CONTRACT

1951, May 22: Combination repayment and water service contract 179r-2165 with Fort Clark Irrigation District provides for repayment period of 40 years plus a 10-year development period. Water service rates provide actual operation and maintenance of supply works for the first 10 years, \$5,100 per year for the next 20 years, and \$5,200 per year for the last 10 years of the contract period. Initial water delivery in 1956. On an interim basis prior to this date.

Summary of status of repayment portion of contract:

Total value of contracted repayment	\$66,000
Total matured charges	4,800
Total matured charges repaid	4,800
Total matured charges unpaid	0

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1956-----	\$4,700	\$4,700
1957-----	4,700	4,700
1958-----	5,100	5,100
1959-----	5,400	5,400
1960-----	7,200	7,200
1961-----	7,500	7,500
1962-----	8,000	8,000
1963-----	8,500	8,500
1964-----	6,500	6,500
1965-----	6,140	6,140
1966-----	7,000	7,000
1967-----	6,226	6,226
Total-----	76,966	76,966

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1967-----	\$66,000	\$1,600	-----	\$1,600	\$1,600	-----	\$1,600	\$1,600
1968-----	66,000	1,600	-----	1,600	1,600	-----	1,600	3,200
1969-----	66,000	1,600	-----	1,600	1,600	-----	1,600	4,800
Total--	-----	4,800	-----	4,800	4,800	-----	4,800	-----

FRENCHMAN-CAMBRIDGE DIVISION, NEBRASKA

Construction of the Frenchman-Cambridge division in southwestern Nebraska was initiated early in 1947. It was authorized by the Flood Control Act of 1944 (58 Stat. 887) and was developed on the Republican River and four of its tributaries to provide flood control in the valley and downstream area, irrigation of 64,280 acres, fish and wildlife conservation, recreational opportunities, and pollution abatement.

The irrigated lands mostly follow the course of the Republican River and Frenchman Creek and are located in seven counties: Chase, Hayes, Frontier, Hitchcock, Red Willow, Furnas, and Harlan. Major works consist of four multipurpose reservoirs, four diversion dams, and the necessary canals, laterals and drains to serve the project lands. The four storage facilities are Harry Strunk Lake (Medicine Creek Dam), Swanson Lake (Trenton Dam), Hugh Butler Lake (Red Willow Dam), and Enders Dam and Reservoir. With the exception of drain construction, the water supply and distribution works of the division are essentially complete. Initial water to newly irrigated lands was made available in 1951 in the form of canal site deliveries.

The current estimated cost of the division is \$81,858,000. Feature costs are:

Enders Dam and Reservoir	\$8,628,542
Medicine Creek Dam and Harry Strunk Lake	7,136,065
Trenton Dam and Swanson Lake	21,379,451
Red Willow Dam and Hugh Butler Lake	6,162,748
Other multipurpose plant	51,379
Irrigation facilities:	
Diversion dams	2,084,527
Canals	25,893,390
Laterals	4,464,791
Drains	1,166,424
Other irrigation facilities	2,077,536
Total plant, property, and equipment	79,044,853
Balance to complete	2,465,393
Total cost	81,510,246
Settlers assistance	65,386
Future year capacity provision	85,307
Property transfers	197,061
Total cost	81,858,000

A total of \$22,528,900 is allocated as nonreimbursable: \$21,844,600 to flood control, \$563,300 to fish and wildlife, and \$121,000 to recreation. Reimbursable

costs total \$59,329,100, including \$59,211,600 for irrigation and \$117,500 for recreation.

The Frenchman-Cambridge division furnishes a full water supply to the Frenchman-Cambridge and the H&RW Irrigation Districts, and a supplemental water supply to the Frenchman Valley Irrigation District. The acreages and crop values in 1969 for each of the districts are as follows:

Frenchman-Cambridge Irrigation District—36,940 acres, producing crops with a total gross value of \$5,054,595 for an average of \$136.83 per acre. The irrigable area for service is 43,190 acres.

H&RW Irrigation District—10,945 acres, producing crops with a total gross value of \$1,419,273 for an average of \$129.67 per acre. The irrigable area for service is 11,490 acres.

Frenchman Valley Irrigation District—8,845 acres, producing crops with a total gross value of \$935,658 for an average of \$105.78 per acre. The irrigable area for service is 9,600 acres.

The Frenchman-Cambridge division may be divided into two geographic areas and operating systems. The first consists of Enders Dam and Reservoir, on Frenchman Creek, and Culbertson Diversion Dam and Main Canal which provide a supplemental water supply to the Frenchman Valley Irrigation District and a full water supply to the H&RW Irrigation District. The Culbertson Diversion Dam and Main Canal were rehabilitated to supplement the streamflow rights of the Frenchman Valley Irrigation District and to supply water via the Culbertson Extension Canal and laterals to the H&RW Irrigation District.

Repayment and water service contracts.—A water service and repayment contract dated May 29, 1947, with the Frenchman-Cambridge Irrigation District, failed Court confirmation and was amended July 19, 1951, to satisfy the Court's objections. This contract was amended further on January 4, 1956, November 1, 1957, March 16, 1961, August 9, 1963, and June 12, 1967. The June 12, 1967, amendment added \$400,000 to the District repayment obligation to cover the cost of additional drainage works to be constructed by the United States and extended the development period from 5 to 10 years. The amended contract provides for a construction obligation of \$4,801,000, payable in 40 annual installments on the basis of irrigation blocks following a 10-year development period. In addition, the District will pay a water service charge annually of \$14,500 for delivery of three-fourths of its water supply and \$1 per acre-foot for the remainder of its water requirements. The District annual water service

charge, after covering the District's share of O&M costs of reservoirs operated by the Bureau (as shown below), is applied toward the return of the cost of the water supply works. The District has the responsibility for constructing drainage works in the future, estimated to cost \$933,000.

A water service contract was entered into with the Frenchman Valley Irrigation District on November 7, 1956. This contract provides: (a) for acquisition by the United States of the District's Culbertson Diversion Dam and Canal, at an appraised value of \$247,000; (b) for delivery of 20,000 acre-feet of the District's water supply upon advance of a fixed, annual water service charge of \$14,880, of which \$6,180 is represented by an annual credit to the District until the credits total \$247,000 in payment for the diversion dam and canal, leaving a net annual water service charge of \$8,700; (c) for the delivery of additional water at a water service rate of \$1.50 per acre-foot; and (d) for joint use of the diversion dam and canal by the two irrigation districts. It is estimated that the fixed, annual water service charge will cover the District's share of operation and maintenance of Enders Reservoir operated by the Bureau and return an additional repayment to apply on the construction costs of water supply works.

A combination water service and repayment contract was entered into, also on November 7, 1956, with the H&RW Irrigation District and amended August 12, 1958, which includes lands not heretofore irrigated in Hitchcock and Red Willow Counties. This contract provides for: (a) extension of the Culbertson Canal and construction of distribution and drainage systems to serve the 11,490 acres of irrigable land; (b) repayment in 40 years of the cost of constructing the distribution and drainage works as a construction charge obligation of \$1,320,000; and (c) payment of annual water service charges by the District to cover operation and maintenance costs of Enders Reservoir and to yield an additional repayment to apply on the construction cost of water supply works. The District's service charge, payable in advance of water deliveries each year, goes first to cover the cost of operation and maintenance of water supply works (Enders Reservoir) operated and maintained by the United States allocable to the District and the remaining portion is applied to the cost of construction of the water supply works.

The second operating system consists of reservoirs (Harry Strunk, Swanson, and Hugh Butler Lakes), diversion works, and distribution works serving the lands of the Frenchman-Cambridge Irrigation District.

Development periods for the Frenchman-Cambridge division are as follows:

Frenchman-Cambridge Irrigation District:

Block I: Irrigable acreage 22,362. 10-year development period, commenced January 1, 1957, and ended December 31, 1966.

Block II: Irrigable acreage 16,398. 10-year development period, commenced January 1, 1960, and ended December 31, 1969.

Block III: Irrigable acreage 4,118. 10-year development period, commenced January 1, 1965, and ends December 31, 1974.

Frenchman Valley Irrigation District: Supplemental water only. No development period for this District.

H&RW Irrigation District: Irrigable acreage 11,490. 10-year development period, commenced January 1, 1963, and ends December 31, 1972.

Operation and maintenance—The districts assumed operation and maintenance responsibility for their respective distribution and water supply works (except reservoirs) as indicated below:

Frenchman-Cambridge Irrigation District: Block I: January 1, 1957. Block II: January 1, 1960. Block III: January 1, 1965.

Frenchman Valley Irrigation District: May 1, 1961.

H&RW Irrigation District: February 1, 1963 (by agreement with the Frenchman Valley Irrigation District, the H&RW District also operates and maintains the Culbertson Diversion Dam and main canal with Frenchman Valley Irrigation District paying its pro rata share of the cost of these jointly used works).

All reservoirs serving the Frenchman-Cambridge division are operated by the Bureau of Reclamation with funds advanced by the irrigation districts for irrigation and from current annual appropriations for the nonreimbursable flood control function, as shown below:

	PERCENT	
	<i>Flood control</i>	<i>Irrigation</i>
Swanson Reservoir	33.9 ¹	66.1
Harry Strunk Lake	30.2 ¹	69.8
Hugh Butler Lake	30.6 ¹	69.4
Enders Reservoir	52.8 ²	47.2

¹ Advanced by Frenchman-Cambridge Irrigation District.

² Consists of 24 percent from Frenchman Valley Irrigation District and 28.8 percent from H&RW Irrigation District.

CONTRACTS

1947, May 29: Contract I1r-1500 with Frenchman-Cambridge Irrigation District. Combined water service and repayment contract. Failed Court confirmation.

1951, July 19: Amendment to contract I1r-1500 with French-

man-Cambridge Irrigation District to satisfy Court's objections.

1956, January 4: Amend contract I1r-1500 with Frenchman-Cambridge Irrigation District.

1956, November 7: Water service contract 14-06-700-1241 with Frenchman Valley Irrigation District. Provides for payment of \$14,880 plus \$1.50 per acre-foot for all water in excess of 20,000 acre-feet over a 40-year contract period. Payments are due on or before May 1 each year. Initial water delivery in 1958.

1956, November 7: Combination water service and repayment contract 14-06-700-1242 with H&RW Irrigation District.

1957, November 1: Amend contract I1r-1500 with Frenchman-Cambridge Irrigation District. Contract provides for repayment of construction obligation of \$4,401,000 in 40 annual installments for each irrigation block following a 5-year development period. Payments on construction obligation are due one-half on or before June 1 and one-half on or before October 1. Payments for water service are due in advance of delivery of water each year. There is a water service charge of \$14,500 plus \$1 per acre-foot for all water in excess of 58,000 acre-feet.

1958, August 7: Amend contract 14-06-700-1242 with H&RW Irrigation District. Repayment in 40 years of construction obligation of \$1,320,000 for distribution and drainage systems and payment of \$6,320 plus \$1 per acre-foot for all water in excess of 17,500 acre-feet. Payments on construction obligation are due one-half on or before June 1 and one-half on or before October 1. Payments for water service are due and payable in advance of delivery of water each year. Initial water delivery in 1961.

1961, March 16: Supplement contract I1r-1500 with Frenchman-Cambridge Irrigation District deferred payments allocated to block I becoming due in 1962-1963 and added the amount of these deferred payments to the last 35 installments of the District construction charge obligation to be paid on account of the lands in block I of the District.

1963, August 9: Amend Contract I1r-1500 with Frenchman-Cambridge Irrigation District. Contract extends the development period to 10 years and terminates the March 16, 1961, deferment contract.

1967, June 12: Supplement contract I1r-1500 with Frenchman-Cambridge Irrigation District. Contract increased the District's construction obligation by \$400,000 or to \$4,801,000.

1967, October 19: Amend contract 14-06-700-1242 with H&RW Irrigation District, extended the development period to 10 years, increased construction obligation for distribution and drainage works to \$1,400,000. This amendment supersedes the existing contract.

Summary of status of repayment contracts:

Total value of construction charge obligation	\$6,201,000
Total matured charges	107,140
Total matured charges repaid	107,140
Total matured charges unpaid	0

In addition, \$232,006 has been paid by the irrigation districts pursuant to water service contracts.

CONSTRUCTION REPAYMENT HISTORY—FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1967-----	\$4,801,000	\$21,258	-----	\$21,258	\$21,258	-----	\$21,258	\$21,258
1968-----	4,801,000	44,224	-----	44,224	44,224	-----	44,224	65,482
1969-----	4,801,000	41,658	-----	41,658	41,658	-----	41,658	107,140
Total-----	-----	107,140	-----	107,140	107,140	-----	107,140	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—
FRENCHMAN-CAMBRIDGE IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1967-----	\$20,484	\$20,484
1968-----	18,609	18,609
1969-----	23,109	23,109
Total-----	62,202	62,202

GARRISON DIVERSION UNIT—GARRISON
DIVISION, NORTH DAKOTA—
SOUTH DAKOTA

The Garrison Diversion unit is located in central and eastern North Dakota and northeastern South Dakota, extending from the Canadian border north of Minot into South Dakota south of Oakes. The unit was initially authorized by section 9 of the Flood Control Act of December 22, 1944 (58 Stat. 887), and the initial 250,000-acre stage was reauthorized by the act of August 5, 1965 (79 Stat. 433). It is a multiple-purpose unit with irrigation, power, municipal and industrial water, recreation, fish and wildlife, and flood control benefits. The primary purpose of the unit is to provide a full water supply for irrigation of 250,000 acres, presently dry-farmed.

The principal supply works for diversion and regulation of the water supply from Garrison Reservoir include Snake Creek Pumping Plant (2,050 cubic feet per second), McClusky Canal (73.7 miles, 1,950 cubic feet per second), and Lonetree Reservoir (410,000 acre-feet). The water use works include two main canals from Lonetree Reservoir and facilities to distribute water to all parts of the unit. The Velva Canal (93 miles, 2,000 cubic feet per second) will serve the Karlsruhe area (12,200 acres) and Middle Souris Section (103,800 acres). The New Rockford Canal (53 miles, 1,600 cubic feet per second) will serve the Oakes section (45,980 acres) and the LaMoure (13,500 acres), Warwick-McVile (47,220 acres), and New Rockford (20,935

acres) areas. The Lincoln Valley area (6,515 acres) will be served directly from McClusky Canal. Water for restoration of Devils and Stump Lakes will flow through the New Rockford, Warwick, and Devils Lake Canals. Construction of Snake Creek Pumping Plant began in July 1968 and Reach 3A of McClusky Canal in May 1970 (scheduled).

Jamestown Dam and Reservoir.—Jamestown Dam is located on the James River about one-fourth mile north of Jamestown and the reservoir extends about 48 miles upstream. It is an integral part of Garrison Diversion unit but was constructed early to provide flood control for Jamestown and downstream areas. The reservoir will impound natural runoff and return irrigation flows and will provide regulation for the water to irrigate lands in the LaMoure area and Oakes section. The dam is of rolled earthfill construction with a "glory-hole" type spillway and gated outlet works. It was built between April 1952 and June 1954. Storage began in February 1954. The reservoir capacity is 230,000 acre-feet. Development of public-use and recreation facilities in the reservoir area is well advanced. Jamestown Dam and Reservoir are operated by the Bureau of Reclamation, financed with appropriated funds. Management of recreational facilities and lands in the reservoir area is the responsibility of the Stutsman County Park Commission under an agreement with that organization dated August 6, 1954.

The estimated total construction cost of Garrison Diversion unit is \$248,786,734, allocated \$198,074,888 to irrigation, \$38,000 to power, \$13,040,846 to municipal and industrial water, \$13,169,000 to recreation, \$21,651,000 to fish and wildlife, and \$2,813,000 to flood control. In addition, \$17,378,000 interest free power for pumping and \$19,410,000 Corps of Engineers' main stem storage costs are assigned to this unit, bringing the total to \$285,574,734.

The reimbursable cost of \$245,955,000 will be repaid by:

Irrigators	\$19,296,000
Power	209,196,000
Municipal and industrial water	14,700,000
Fish and wildlife	1,243,000
Recreation	1,520,000

The nonreimbursable cost of \$39,619,734 includes \$23,517,000 for fish and wildlife, \$13,289,734 for recreation, and \$2,813,000 for flood control.

Repayment and water-service contracts.—The master repayment contract between the United States and the Garrison Diversion Conservancy District provides that, following the development period, the construction costs will be repaid in 40 years. It also provides for payment of the allocated operation and maintenance costs.

In addition to the master contract, three-way contracts between the United States, Garrison Diversion Conservancy District and irrigation districts and municipalities have been or are in the process of being negotiated. Under the three-way contracts, the Conservancy District shall act as the fiscal agent of the United States and shall collect construction and operation and maintenance payments due to the United States.

Three-way contracts were executed March 16, 1966, with Dickey-Sargent, James River, Lincoln Valley, and Warwick-McVile Irrigation Districts.

Execution of additional three-way contracts is scheduled (as of June 30, 1969) with city of Minot, October 1970, and with these irrigation districts—Karlsruhe, September 1971; Middle Souris, September 1972; Mouse River, September 1973; New Rockford, September 1974.

CONTRACTS

1959, August 24: Contract 14-06-600-3841 with city of Jamestown for water service and pollution abatement. Renewable annually up to December 31, 1969. Delivery of up to 400 acre-feet per year for pollution abatement. Payments of \$2 per acre-foot requested per year.

1966, January 26: Master water service and repayment contract 14-06-600-8948 with the Garrison Diversion Conservancy District for a period of 40 years, beginning with the year in which water becomes available. The Conservancy District will pay the United States each year: (1) the cost of operating and maintaining any portion of the supply works not transferred to the District; (2) an irrigation construction component for water supply works, which will be fixed on the basis of 50 cents for each irrigable acre, in areas which have no development period or in areas which have completed their development periods; (3) a municipal component, which will be the total received for municipal water furnished, minus an amount equivalent to 7.1 percent of the cost of op-

eration and maintenance of the principal supply works; and (4) a miscellaneous component, which will be the total received for water furnished for miscellaneous purposes.

1966, March 16: Three-way water service and repayment contracts as follows:

14-06-600-8972—James River Irrigation District—	13,350 acres
14-06-600-8973—Warwick-McVile Irrigation District—	47,220 acres
14-06-600-8974—Dickey-Sargent Irrigation District—	45,980 acres
14-06-600-8975—Lincoln Valley Irrigation District—	6,515 acres

The Conservancy District will pay the United States the water service charges in accordance with the master contract. The irrigation districts will pay the Conservancy District an annual development period charge which will be based on a percentage of the estimated total annual water charge payable by the irrigation district after the development period, ranging progressively from 10 to 100 percent.

Each year following the development period, each irrigation district will pay the Conservancy District a water service charge equal to the sum of the following: (1) the irrigation district's proportionate share of the cost of operating and maintaining the water supply works; (2) the irrigation district's proportionate share of the cost of operating and maintaining the distribution works; (3) the irrigation district's share of the cost of maintaining the operation and maintenance reserve fund; (4) a construction component for water supply works, which will be computed at the rate of 20 cents for each acre of land in the District classified as irrigable; and (5) a construction charge installment for distribution works computed on a variable basis for each acre of class 1, 2, and 3 land in the service area, but not less than a firm amount specified in the contract.

Summary of status of repayment contracts:

Total value of contracted repayment	\$5,451,000
Total matured charges	0

GLEN ELDER UNIT—SOLOMON DIVISION, KANSAS

The Glen Elder unit was approved by the Flood Control Act of 1944 (Public Law 534, 78th Congress, 2d session) as a unit of the Missouri River Basin Plan, and authorized by the Flood Control Act of 1946 (Public Law 526, 79th Congress, 2d session).

Construction began on Glen Elder Dam in September 1964 and was completed in 1969. The storage capacity

of the reservoir is 976,000 acre-feet. The dam was built for flood control, irrigation, municipal water, fish and wildlife conservation, and enhancement of recreation opportunities. Construction of the irrigation facilities will require reauthorization pursuant to the act of August 14, 1964 (Public Law 84-442).

The total estimated cost is allocated as follows:

Glen Elder Dam and Reservoir	\$54,001,773
Other multipurpose facilities	127,280
Balance to complete	8,509,253
Total	62,638,306
Settlers assistance	1,000
Total cost	62,639,306
Allocation:	
Reimbursable:	
Irrigation	5,692,500
Recreation	460,000
Municipal and industrial water	192,400
Nonreimbursable:	
Flood control	53,461,206
Fish and wildlife	445,200
Highway betterment	2,388,000

The principal features of the unit include Glen Elder Dam and Waconda Lake, Solomon Canal, and laterals and associated drains. The unit is designed to serve 21,000 acres of irrigable land and a full municipal water supply for the city of Beloit, Kans.

It is expected that repayment by irrigators will be in the form of a combination water-service and construction repayment contract as provided for in sections 9(d) and 9(e) of the Reclamation Project Act of 1939 (53 Stat. 1187). The estimated repayment from the city of Beloit, Kans., is \$192,900. The balance of the reimbursable costs would be amortized by Missouri River Basin project power revenues.

The municipal water-service contract with the city of Beloit, Kans., was executed May 24, 1962. The provisions of the contract are that the United States will furnish the city of Beloit, Kans., water as needed from Glen Elder Reservoir, not to exceed 2,000 acre-feet annually. The contract further provides that the city pay the United States the amount of \$6,100 annually for the first 10 years, \$6,900 for the second 10 years, \$7,600 for the third 10 years, and \$8,400 for the fourth 10 years.

The operation and maintenance of Glen Elder Dam and Waconda Lake, the only completed features of the unit, is by the United States with 1.5 percent of the cost being covered by the water service charge paid by the city of Beloit and the 98.5 percent balance of

the cost being provided from current appropriations for the nonreimbursable flood control function.

GLENDON UNIT—OREGON TRAIL DIVISION, WYOMING-NEBRASKA

The unit was authorized by the Flood Control Act of 1944 (58 Stat. 887). Construction began on Glendon Dam and Powerplant in November 1954, and on Fremont Canyon Powerplant in July 1956 under a modified plan as presented in the definite plan report of December 1952 approved by act of July 16, 1954 (68 Stat. 486), Public Law 503, 83rd Congress, 2d Session. The construction and operation of Gray Reef Dam and Reservoir (a regulating reservoir) was authorized by Public Law 85-695 (72 Stat. 687), 85th Congress, 2d session, modifying the Glendon unit of the Missouri River Basin project. Construction of Gray Reef Dam was completed on May 12, 1961.

The multiple-purpose Glendon unit provides irrigation water supplies, generates electric power, serves flood control, and creates fishery values in the North Platte River. Other related benefits in the form of pollution abatement, sediment control, recreation, and improvement of municipal and industrial water supplies accrue. Principal features of the unit are Glendon Dam, Reservoir, and Powerplant near Glendon, Wyo.; Fremont Canyon Powerplant at the backwater of Alcova Reservoir; and Gray Reef Dam and Reservoir below Alcova Dam.

The capacity of Glendon Reservoir totals 798,400 acre-feet, exclusive of surcharge capacity of 329,700 acre-feet. The Glendon and Fremont Canyon Powerplants have installed capacities of 24,000 and 48,000 kilowatts, respectively. The Glendon Powerplant was operated initially in December 1958. The Fremont Canyon Powerplant was operated initially in December 1960. By stipulation amending the North Platte River decree, Glendon Reservoir provides for use of 40,000 acre-feet of water annually for irrigation, divided 25,000 acre-feet for Nebraska lands and 15,000 acre-feet for Wyoming.

Water service contracts have been negotiated with Mitchell and Enterprise Irrigation Districts in Nebraska for 15,000 acre-feet and with the New Grattan, Burbank, and Wright & Murphy Ditch Co., Lucerne Canal & Power Co., and Torrington Irrigation District, all in Wyoming, for a total of 4,000 acre-feet. These groups have contracted to pay a minimum annual charge of \$2.80 per acre-foot for one-tenth of the water allotted and \$1.80 per acre foot for the remainder. Water, when available, in excess of a contractor's allot-

ment, may be purchased for \$1.90 per acre-foot. Groups contracting have direct river-flow rights from the North Platte River for the irrigation of 31,256 acres. No development periods are required for the seven contractors furnished supplemental water. Initial water deliveries were made in 1958.

The seven contractors pay a minimum service charge in advance of water delivery each year computed at the rate of \$2.80 per acre-foot for one-tenth of the maximum contract quantity. This charge goes first to cover the Bureau's cost of operation and maintenance of Glendo Reservoir. Additional water up to the contract maximum quantity is deliverable upon payment in advance at the rate of \$1.80 per acre-foot.

A total of 26,782 acres were irrigated in 1969, producing crops with a total gross value of \$3,447,572 for an average of \$128.73 per acre. The irrigable area for service is 31,256 acres.

The total cost of the Glendo unit and allocation for repayment follow:

Cost	
Glendo Dam and Reservoir	\$12,974,522
Electric plant:	
Gray Reef Dam and Reservoir	974,739
Glendo Powerplant and facilities	5,374,526
Fremont Canyon Powerplant and facilities ...	24,956,675
Interest during construction	1,731,214
Balance to complete	179,500
Plant, property, and equipment	<u>46,191,176</u>
Allocation	
Irrigation	4,052,397
Irrigation pumping	6,507,808
Commercial power	28,942,618
Recreation (reimbursable)	13,480
Fish and wildlife (nonreimbursable)	1,292,042
Flood control (nonreimbursable)	5,382,831
Total	<u>46,191,176</u>
Probable repayment	
Reimbursable cost:	
Irrigation	2,970,000
Power	36,517,690
Contributions	2,000
Miscellaneous income	26,613
Total reimbursable	39,516,303
Nonreimbursable	6,674,873
Total	<u>46,191,176</u>

Water service contracts.—40-year water service contracts, with payments due on or before May 1 of each year, have been executed as follows:

1958, June 12: Burbank Ditch Co., for a maximum of 200 acre-feet annually. Minimum annual charge, \$56.
1958, June 12: Enterprise Irrigation District, for a maximum of 3,000 acre-feet annually. Minimum annual charge, \$840.
1958, June 12: New Grattan Ditch Co., for a maximum of 200 acre-feet annually. Minimum annual charge, \$56.
1958, June 12: (Amended June 10, 1960.) Lucerne Canal and Power Co., for a maximum of 2,500 acre-feet annually. Minimum annual charge, \$700.
1958, June 12: Mitchell Irrigation District, for a maximum of 12,000 acre-feet annually. Minimum annual charge, \$3,360.
1958, June 12: Wright and Murphy Ditch Co., for a maximum of 100 acre-feet annually. Minimum annual charge, \$28.
1958, July 14: Torrington Irrigation District, for a maximum of 1,000 acre-feet annually. Minimum annual charge, \$280.

Income from water sold.—Cumulative totals from seven contractors from sale of water through fiscal year 1969:

Burbank Ditch Co.	\$886
Enterprise Irrigation District	9,780
New Grattan Ditch Co.	644
Lucerne Canal & Power Co.	25,168
Mitchell Irrigation District	175,937
Wright & Murphy Ditch Co.	2,064
Torrington Irrigation District	5,960
Total cumulative income	<u>220,439</u>

Water service contracts with the seven contractors are expected to return about \$1,559,350 to the project. Contracts have not been made for a portion of the storage water which is expected to return an additional \$1,410,650 for a total of \$2,970,000.

HANOVER-BLUFF UNIT—BIGHORN BASIN DIVISION, WYOMING

The Hanover-Bluff unit, located in north-central Wyoming, consists of two areas irrigated by pumping water from existing private canals that divert from the Bighorn River. The Highland-Hanover area, containing 6,105 acres of irrigable land on the east side of the Bighorn River, receives water from the main canal of the Hanover Irrigation District. The Upper Bluff area, containing 1,336 acres of irrigable land on the west side of the river, receives water from the main canal of the Bluff Irrigation District. Both areas are assured an adequate water supply from the Boysen Reservoir, a feature of the Boysen unit, Missouri River Basin project.

The major works of the Hanover-Bluff unit consist of six pumping plants ranging in capacity from 12.2 cubic feet per second to 96 cubic feet per second, 21.4

miles of existing private canals enlarged in construction of the unit, 15.1 miles of new canal and pipelines, approximately 19 miles of laterals and 41 miles of drains, with additional drains to be constructed. Construction of the pumping plants began in April 1955 and was completed in October 1956, with the first water available for new land in 1957. The canals and laterals were completed in May 1957 and the drainage is scheduled for completion in 1972. The Highland-Hanover and the Upper Bluff Irrigation Districts assumed responsibility for operation and maintenance of the unit facilities on January 1, 1958, the beginning of the 10-year development period.

There were 7,257 acres irrigated in 1969, with a total crop value of \$1,216,591 or \$167.64 per acre. The cumulative crop value from 1957 through 1969 is \$8,737,681.

The total estimated construction cost of the unit is \$6,596,478, including \$1,379,854 of costs assigned from the Boysen unit. All of the costs are assigned to irrigation, with \$25,899 identified as nonreimbursable O&M administration.

Repayment of the \$672,560 construction charge obligation of the two irrigation districts began in 1968 under a 40-year repayment plan, with annual install-

ments scheduled at progressively increasing amounts. At June 30, 1969, \$14,980 had been paid on this obligation and \$3,740 water service charges paid on cost of the water supply works.

CONTRACTS AND PUBLIC NOTICE

1955, April 8: Contract 14-06-600-1532 with Highland-Hanover Irrigation District provides for the payment by the District of \$1,430 a year for 30 years on the cost of the water supply works and a construction charge obligation of \$513,800 for the distribution works, to be repaid in 40 years.

1955, April 8: Contract 14-06-600-1533 with Upper Bluff Irrigation District provides for the payment by the District of \$440 a year for 30 years on the cost of the water supply works and a construction charge obligation of \$158,760 for the distribution works, to be repaid in 40 years.

1957, May 31: Public notice. Opened six public land homesteads to entry and announced availability of water for irrigation of privately owned lands in the unit.

Summary of status of repayment contracts:

Total value of contracted repayment	\$672,560
Total matured charges	14,980
Total matured charges repaid	14,980
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1968-----	\$672,560	\$6,790	-----	\$6,790	\$6,790	-----	\$6,790	\$6,790
1969-----	672,560	8,190	-----	8,190	8,190	-----	8,190	14,980
Total--	-----	14,980	-----	14,980	14,980	-----	14,980	-----

HEART BUTTE UNIT—HEART DIVISION, NORTH DAKOTA

The Heart Butte unit is located on the Heart River in Grand and Morton Counties in southwestern North Dakota. State Highway No. 49 crosses Heart Butte Dam about 15 miles south of Glen Ullin and the irrigable areas extend eastward from there for about 60 miles along the Heart River to the city of Mandan. The unit is a multiple-purpose development designed to provide flood control for downstream areas, controlled conservation for irrigation of 13,100 acres, sedimentation control, fish and wildlife conservation, and recreational benefits.

The principal features of the unit include a rolled earthfill dam with a "glory hole" type spillway and outlet works, a 225,500 acre-foot reservoir, wildlife habitat areas to replace those inundated by the reservoir, and necessary pumping plants, laterals and drains to serve the irrigable lands. Construction of the dam was begun in April 1948 and completed in December 1949. Water storage began in October 1949, and it has since played a major role in providing flood protection, particularly to the city of Mandan, N. Dak. Construction of facilities to irrigate the 2,512 irrigable acres of the Western Heart River Irrigation District has been completed. Pumping plants were begun in October

1954 and completed in January 1958, making water available for 1958. Water was furnished on an interim basis prior to this date.

In 1969, 2,429 acres were irrigated, with a total crop value of \$150,851 or \$62.10 per acre. Construction of irrigation facilities required to serve the rest of the 13,100 acres will not be started until appropriate repayment arrangements have been made.

The total unit cost is \$4,023,111, of which \$3,521,374 represents the cost of Heart Butte Dam and Reservoir. \$1,457,800 is currently allocated to flood control, \$9,749 to O&M administration, and \$277,552 to fish and wildlife, as nonreimbursable. Of the reimbursable cost, \$2,271,210 is allocated to irrigation, \$2,569 to recreation, and \$4,231 to depreciation. The reimbursable cost is scheduled for repayment as follows:

By irrigation waters users:

Construction charge repayment	\$145,200
Water service revenues	806,050
By surplus basinwide power revenues	1,326,760
Total reimbursable	2,278,010

Heart Butte Dam and Reservoir are operated by the Bureau of Reclamation and financed by direct appropriation. Management of the reservoir area is the responsibility of the North Dakota State Game and Fish Department under a contract with that agency.

The irrigation facilities are operated by the Western Heart River Irrigation District.

The 10-year development period was initiated January 1, 1958.

Repayment and water-service contracts.—The combination contract with the Western Heart River Irrigation District provides that, following the development period, \$145,200 of the distribution facilities construction cost will be repaid in 40 years, and an estimated \$20,550 of the supply work construction cost will be repaid in 30 years. It also provides that the District will pay an allocated share of the water supply operation and maintenance cost.

CONTRACT

1954, December 16: Combination repayment and water service contract 14-06-600-1302 with Western Heart River Irrigation District for construction charge obligation of \$145,200 for distribution system. Water service rates \$0.30 per irrigable acre per year (the allocation of operation and maintenance costs on Heart Butte Dam and Reservoir). Repayment, \$3,630 per year for 40 years on distribution system and \$685 per year for 30 years on the supply works. Initial water delivery in 1958.

Summary of status of repayment portion of contract:

Total value of contracted repayment	\$145,200
Total matured charges	5,445
Total matured charges repaid	5,445
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1968-----	\$145,200	\$1,815	-----	\$1,815	\$1,815	-----	\$1,815	\$1,815
1969-----	145,200	3,630	-----	3,630	3,630	-----	3,630	5,445
Total--	-----	5,445	-----	5,445	5,445	-----	5,445	-----

HELENA VALLEY UNIT—HELENA—GREAT FALLS DIVISION, MONTANA

The Helena Valley unit is located in Lewis and Clark County near Helena, Mont.

The unit provides for irrigation of 17,657 acres, of which full irrigation supply is furnished to 14,147 acres and a supplemental irrigation supply for 3,510 acres receiving a partial supply by diversion from Prickly Pear, Silver, and Ten Mile Creeks. The Canyon Ferry Dam, a multipurpose structure, stores water that is lifted by hydraulic turbine-driven pumps to the

Helena Valley tunnel. The water flows by gravity through the 2.6-mile tunnel, passing under the Spokane Hills into Helena Valley. The Helena Valley Canal (34 miles long) conveys water around the south, west, and north sides of the bowl-shaped valley, terminating in a wasteway into Lake Helena. Helena Valley regulating reservoir, formed by an earthfill dam 91 feet high, has an active capacity of approximately 10,600 acre-feet, and is located at Mile 11 of the Helena Valley Canal. It was built between April 1957 and April 1958. Storage began in March 1959. A system of drains

provides for the disposition of excess surface and sub-surface water from the unit lands. A 58-mile-long lateral system including all appurtenant structures has been constructed for the unit.

This unit also provides for the storage of water in the regulating reservoir for municipal use by the city of Helena.

Water was first delivered in 1959 but, because of leakage problems in a portion of the reservoir area, it was necessary to delay announcement of the beginning of the development period until January 1, 1965. The unit is being operated and maintained by the Bureau of Reclamation with funds advanced by the water users during the development period.

During the year 1969, a total of 12,784 acres were irrigated, with a total crop value of \$1,182,624 or \$92.51 per acre. The cumulative gross crop value from 1959 through 1969 amounts to \$6,552,370.

Allocation of the total estimated cost of the Helena Valley unit, including \$776,454 assigned Canyon Ferry unit costs, is as follows: estimated total cost \$16,521,580, irrigation \$15,266,529, municipal water \$755,439, and nonreimbursable fish and wildlife and other \$499,612.

Repayment contracts.—The Helena Valley Irrigation District, organized on June 28, 1955, consists of 14,135 irrigable acres for which distribution works have been built. The District entered into a repayment contract, dated November 26, 1956, amended December 16, 1959, with the United States. Under this contract the District will repay a construction charge obligation of \$819,018 and an annual payment of \$0.15 per irrigable acre towards reimbursement of the cost of the water supply facilities. Payments are to begin in 1975 after completion of the development period.

On August 27, 1956, a municipal water supply contract was executed with the city of Helena, under which it is estimated that the city will pay \$665,000 of the construction costs of this unit with interest, in addition to \$48,472 of Canyon Ferry costs allocated to the city of Helena.

Repayment negotiations will be carried on with prospective supplemental water users when sufficient interest is shown by them for the supplemental irrigation of significant portions of the 4,623 acres which require a supplemental water supply.

CONTRACTS

1956, August 27: 40-year water-service contract with city of Helena pursuant to section 9(c)(2) of the Reclamation Project Act of 1939. Minimum annual payment \$9,700 in

advance, for which city is entitled to 600 acre-feet of water delivered at outlet works of Helena Valley regulating reservoir. Additional water up to 5,680 acre-feet annually, including the 600 acre-foot base quantity to be furnished on advance payment at rate of \$14 per acre-foot.

1956, November 26, amended December 16, 1959: 40-year combination water-service and repayment contract 14-06-600-2079 with Helena Valley Irrigation District. Repayment obligation of \$819,018, payable in 80 equal successive semiannual installments after completion of 5-year development period. For annual water supply, District to pay full cost of operation and maintenance of water supply works plus 15 cents per irrigable acre.

Summary of status of repayment contracts:

Total value of contracted repayment	\$819,018
Total matured charges	7,783
Total matured charges repaid	7,783
Total matured charges unpaid	0

KEYHOLE UNIT—CHEYENNE DIVISION, WYOMING

Keyhole Dam and Reservoir is located on the Belle Fourche River in Crook County, Wyo. Construction began June 29, 1950, and was completed October 25, 1952. Storage began March 31, 1952, and the first water was made available for irrigation in 1953.

The purposes of the Keyhole Dam and Reservoir are to provide supplemental water to 57,068 acres on the Belle Fourche project, supply water for irrigation in Wyoming, control floods, and enhance recreation and fish and wildlife conservation. Under the terms of the Belle Fourche River compact, Wyoming is entitled to 10 percent of the unappropriated flow of the Belle Fourche River and may purchase up to 10 percent of the active storage capacity of the reservoir for use in the State.

The major feature is Keyhole Dam, a rolled earthfill structure with a reservoir capacity of 199,900 acre-feet, plus 140,200 acre-feet of exclusive flood control storage and 283,200 acre-feet of surcharge storage. Water is released from the outlet works of the dam into the Belle Fourche River.

Operation is by the Bureau of Reclamation with appropriated funds.

Repayment contracts.—A number of interim contracts with the Belle Fourche Irrigation District and with individuals in Wyoming have been executed in past years for furnishing water at the outlet gates of the dam. An amendatory water-service and repayment contract with the Belle Fourche Irrigation District was executed on January 2, 1963. This is a 40-year contract, which provides for the payment of \$60,000 construc-

tion charges at the rate of \$1,500 annually, and for 7.7 percent of the annual cost of operating and maintaining the Keyhole Dam, Reservoir, and appurtenant works allocated to irrigation. Additional water may be purchased if and when available at the rate of \$1.25 per acre-foot at the dam outlet, or \$2 per acre-foot at the Wyoming-South Dakota State line as elected by the District.

The total cost of the Keyhole unit is \$4,721,870, allocated as follows: irrigation \$3,703,300, recreation \$5,800 (total reimbursable of \$3,709,100); fish and wildlife \$357,970, and flood control and navigation \$654,800 (total nonreimbursable of \$1,012,770).

Keyhole Reservoir is the largest body of water in

northeastern Wyoming and is very popular for picnicking, camping, swimming, boating, and fishing.

CONTRACT

1963, January 2: Combination water service and repayment contract 14-06-600-6979 with Belle Fourche Irrigation District. Repayment of \$60,000 construction charges at the rate of \$1,500 annually for 40 years, and purchase of water, if available, at \$1.25 per acre-foot at the dam outlet or \$2 per acre-foot at the South Dakota boundary line.

Summary of status of repayment contract:

Total value of contracted repayment	\$60,000
Total matured charges	9,750
Total matured charges repaid	9,750
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1963-----	\$60,000	\$750	-----	\$750	\$750	-----	\$750	\$750
1964-----	60,000	1,500	-----	1,500	1,500	-----	1,500	2,250
1965-----	60,000	1,500	-----	1,500	1,500	-----	1,500	3,750
1966-----	60,000	1,500	-----	1,500	1,500	-----	1,500	5,250
1967-----	60,000	1,500	-----	1,500	1,500	-----	1,500	6,750
1968-----	60,000	1,500	-----	1,500	1,500	-----	1,500	8,250
1969-----	60,000	1,500	-----	1,500	1,500	-----	1,500	9,750
Total--	-----	9,750	-----	9,750	9,750	-----	9,750	-----

KIRWIN UNIT—SOLOMON DIVISION, KANSAS

The Kirwin unit, authorized under the Flood Control Act of 1944 (58 Stat. 887), is in Phillips, Smith and Osborne Counties, Kansas. It is a multipurpose unit which provides benefits from flood control and storage for irrigation, municipal water, fish and wildlife, and recreation.

The principal features of the unit are the Kirwin Dam and Reservoir, completed in 1955; Kirwin Main, North and South Canals and laterals, completed in 1958.

The total estimated cost of the unit is \$20,013,000. The cost of the features are:

Kirwin Dam and Reservoir	\$13,831,678
Kirwin canals	4,386,750
Kirwin laterals, drains, etc.	1,122,453
Balance to complete	571,072
	<u>19,911,953</u>
Settlers assistance	23,681

Future year capacity	9,506
Property transfers	67,860
	<u>20,013,000</u>

A total of \$7,910,300 is allocated as nonreimbursable, consisting of \$7,838,500 to flood control and \$71,800 to fish and wildlife. Reimbursable costs total \$12,102,700, including \$12,094,700 for irrigation and \$8,000 for the specific cost of recreation facilities.

A total of 9,554 acres were irrigated in 1969, producing crops with a total gross value of \$1,296,575 for an average of \$135.71 per acre. The irrigable area for service is 11,435 acres.

Operation and maintenance.—The District assumed operation and maintenance of the Kirwin Main North and South Canals and laterals on January 1, 1960. The multipurpose Kirwin Dam and Reservoir is operated and maintained by the Bureau of Reclamation, with 26.1 percent of the cost being advanced by the Kirwin Irrigation District, and 73.9 percent from current

annual appropriations for the nonreimbursable flood control function. The District's service charge, payable in advance of water deliveries each year, goes first to cover the cost of operation and maintenance of water supply works operated and maintained by the United States allocable to the District, and the remaining portion is applied to the District's construction obligation.

Repayment contract.—A combination water-service and repayment contract was entered into June 9, 1953, with Kirwin Irrigation District. The repayment contract contains a construction charge obligation in the amount of \$1,190,313 to cover costs of constructing the distribution works and the portion of drainage works required immediately. Repayment by the District will be in annual installments, based on a 40-year repayment period following a 5-year development period. The development period commenced on January 1, 1960, and ended December 31, 1964.

The District will also make annual water-service repayments to the United States. During a 50-year repayment period, water-service payments by the District pursuant to its 1953 contract, and a future renewal of the water service portion thereof, are expected to cover the District's share of Kirwin Dam and

Reservoir O&M costs and to return an estimated \$2,053,517 to apply to the construction cost of the water supply works serving the District. The reimbursable construction cost of water supply works in excess of water user ability to pay will be returned from surplus power revenues of the Missouri River Basin project.

CONTRACT

1953, June 9: Amended October 18, 1955, and February 12, 1959. Combination water-service and repayment contract with Kirwin Irrigation District No. 1. Repayment obligation for the distribution system is \$1,190,313. Contract period is 40 years. Payments on construction obligation are due one-half on or before April 1, and one-half on or before November 1. Payments for water service are due in advance of delivery of water each year. Water service rates, \$3,400 plus \$1 per acre-foot for water in excess of 14,000 acre-feet. Date of initial water delivery, June 1957.

Status of repayment contract:

Total value of construction charge obligations	\$1,190,313
Total matured charges	133,910
Total matured charges repaid	133,910
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—KIRWIN IRRIGATION DISTRICT NO. 1

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1965-----	\$1,190,313	\$14,879	-----	\$14,879	\$14,879	-----	\$14,879	\$14,879
1966-----	1,190,313	29,758	-----	29,758	29,758	-----	29,758	44,637
1967-----	1,190,313	29,758	-----	29,758	29,758	-----	29,758	74,395
1968-----	1,190,313	29,758	-----	29,758	29,758	-----	29,758	104,153
1969-----	1,190,313	29,757	-----	29,757	29,757	-----	29,757	133,910
Total -----	-----	133,910	-----	133,910	133,910	-----	133,910	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—KIRWIN IRRIGATION DISTRICT NO. 1

Fiscal year	Accruals	Collections
1965-----	\$5,633	\$5,633
1966-----	4,891	4,891
1967-----	5,692	5,692
1968-----	6,515	6,515
1969-----	7,310	7,310
Total -----	30,041	30,041

KORTES UNIT—OREGON TRAIL DIVISION, WYOMING

The Kortes Dam, Reservoir, and Powerplant was the

first unit of the Missouri River Basin project to be built by the Bureau of Reclamation. Construction was started May 17, 1946, the first power generated in June 1950, and construction completed in March 1951.

Kortes Dam is situated on the North Platte River between Seminole Dam and Pathfinder Reservoir. Kortes Powerplant takes advantage of the difference in head between Seminole and Pathfinder Reservoirs. The powerplant of three generating units has a capacity of 36,000 kilowatts. No storage or irrigation facilities are incorporated with the Kortes unit, the small capacity serving as a forebay pool for powerplant regulation only.

Costs of major features are:

Kortes Dam and Reservoir	\$5,631,797
Kortes Powerplant	7,599,092
Other electric facilities	769,984
Interest during construction	611,510
Balance to complete	6,000
	<hr/>
	14,618,383
	<hr/>

The entire construction cost of \$14,618,383 is allocated to power. The power allocation is repayable as a part of the total Missouri River Basin project power system within a period of 50 years with interest at 3 percent.

The Bureau of Reclamation operates the dam and powerplant and finances operation and maintenance costs directly. Recreational facilities at Kortes Reservoir are operated and maintained by the State of Wyoming.

LOWER MARIAS UNIT—MARIAS DIVISION, MONTANA

The Lower Marias unit is located in northcentral Montana in Chouteau, Hill, and Liberty Counties. The key features, which were constructed between September 1952 and December 1955, are Tiber Dam and Reservoir. Tiber Dam is an earthfill structure containing 8,300,000 cubic yards of embankment materials. The dam has a crest length of 4,300 feet and a structural height of 201 feet. Tiber Reservoir has a storage capacity of 1,368,157 acre-feet, of which 370,243 acre-feet are exclusively allocated to conservation and 413,255 to flood control. Storage began in December 1954. An earth cofferdam has been constructed across the spillway inlet, prohibiting use of the spillway, no longer usable because of gradual deterioration. Flood releases are provided by an auxiliary outlet works, completed in 1969, which permits a maximum discharge of 4,100 cubic feet per second.

The main features of the unit remaining to be constructed are a modified spillway, removal of each cofferdam, and raising the dam crest to a structural height of 210 feet.

To date, the Marias Irrigation District, which was organized on June 7, 1950, has not entered into a repayment contract with the Government. Scheduling of future construction activities for irrigation features will depend on authorization of the potential Marias-Milk unit, which would receive its water supply from Tiber Reservoir; dissolving the present Marias Irrigation District; and securing sufficient signatures to a repayment contract to qualify under Montana laws.

The total estimated cost including the modification of the dam and spillway is \$37,777,608. To date, the sum of \$24,075,088 has been expended on the completed features.

The Marias area is one of dryland agriculture. West of Tiber Reservoir a few farmers irrigate small acreages by pumping or by diversion of water during periods of high flow, and a few small tracts are irrigated from Big Sandy and Boulder Creeks. Since 1920, over 90 percent of the cropland has been in wheat and barley and the remainder in other small grains such as crested wheatgrass and tame hay. Beef cattle raising is the most important livestock enterprise. Full irrigation of this area when authorized will alter this standing. Allocated conservation pool in Tiber Reservoir is sufficient to provide future full irrigation development, expand fish and wildlife habitat in the Lonesome Lake and Chain-of-Lakes Coulee areas, provide municipal water for the communities in the area, and meet water quality control standards downstream.

Tiber Reservoir, in addition to contributing to the abatement of floods on the Marias River and silt control, makes possible greater utilization of the Fort Peck Reservoir on the Missouri River and provides regulation of the stream to meet downstream demands for support of fish and wildlife, irrigation, and urban and rural domestic uses.

CONTRACT

1962, January 17: Contract 14-06-600-6167 with city of Chester, Mont., for 100 acre-feet for \$500 annually for 40 years. Additional amount up to 400 acre-feet annually at \$10 per acre-foot used. Water available at reservoir site; city to pump and deliver.

Three temporary water service contracts with individuals for irrigation, annual service charge \$1.50 per acre.

OAHE UNIT—JAMES DIVISION, SOUTH DAKOTA

The Oahe unit was first authorized as a part of the Missouri River Basin project under the Flood Control Act of 1944 (58 Stat. 887). Construction of the initial stage of the Oahe unit was authorized under Public Law 90-453 on August 3, 1968. The plan of development provides for the diversion of water from existing Lake Oahe, formed by Oahe Dam on the Missouri River about 6 miles north of Pierre, S. Dak., for the irrigation of 190,000 acres, municipal-industrial water for 17 towns and cities, fish and wildlife conservation at 18 locations, and recreation at 5 locations. There will also be flood control benefits and water quality control benefits on the James River.

The irrigable lands are located in the James River basin area in Brown and Spink Counties, South Dakota. The municipalities and the fish and wildlife habitat areas that will be furnished water are generally located along the water supply system between Lake Oahe and the area of the irrigable lands.

The principal supply works include the Oahe Pumping Plant, which will pump water from Lake Oahe; a system of main canals; three regulating reservoirs; and the James Diversion Dam and James Pumping Plant on the James River. The remaining works will include canals and laterals for distributing water to the turn-outs, pumping plants, and a project surface and sub-surface drainage system.

Electric power for pumping will be supplied from the Missouri River Basin power system directly over system and project facilities.

The James section which has been completed consists of the James Diversion Dam and recreation facilities located on the James River 15 miles north and one mile west of the city of Huron, Beadle County, South Dakota. The reservoir formed by impounding the James River waters at conservation pool level extends northward for about 34 miles from the damsite.

The James Diversion Dam provides the city of Huron with 2,500 acre-feet of additional water storage space for municipal and industrial purposes. Water service began May 1, 1965, and at June 30, 1969, payments on the capital investment totalled \$87,300. There will be no irrigation from this storage until further development of the unit.

Operation and maintenance of the dam and reservoir is by the city of Huron.

Repayment contracts.—Three types of contracts are involved in repayment arrangements for the Oahe unit. The master contract between the United States and the Oahe Conservancy Sub-District obligates the Sub-District for the operation and maintenance of the project facilities and payment of the allocated construction costs of the supply and distribution facilities of the Oahe unit. Participating contracts between the Conservancy Sub-District and each irrigation district provide for the operation, maintenance, and replacement of project facilities and capital cost obligations. The security contracts between the United States and each irrigation district provide that the irrigation district is responsible for its respective share of the Oahe Conservancy Sub-District's payment obligation to the United States if the Sub-District would fail to meet its obligations as provided for in the master contract.

The master contract was executed January 8, 1969,

with the Oahe Conservancy Sub-District. Part A of the contract is pursuant to section 9(e) of the Reclamation Project Act of 1939 (53 Stat. 1187) for the water supply works of the initial stage of the Oahe unit. The Conservancy Sub-District is the primary contractor with the United States and is responsible for all water deliveries to its contractors and for all water service repayment obligations thereto. Part B of the contract provides for the construction of distribution works by the United States, the repayment by the Conservancy Sub-District of an assigned share of the construction costs of such works, and the transfer of the responsibility for the operation and maintenance and replacement of distribution system works from the United States to the Conservancy Sub-District. Part B has a 40-year repayment period, plus an initial 10-year development period. Part C of the contract concerns the functions of recreation and fish and wildlife to carry out the provisions of the Federal Water Project Recreation Act of July 9, 1965 (79 Stat. 213).

The master contract is similar to the usual Bureau of Reclamation contracts. It contains provisions relating to excess lands, operation and maintenance of transferred works, water rights, adjustment of disputes, and reserve fund requirements. Standard provisions concern the levy of assessments, tolls and charges, defaults, records and reports, water quality, and pollution control. Articles pertaining to the Civil Rights Act of 1964 and equal employment opportunity are also included.

The participating and security contracts are pursuant to article 14 of the master contract. The security contracts with the West Brown Irrigation District and the Spink County Irrigation District were executed December 23, 1969. These contracts are basic to further implementation of the initial stage of the multipurpose Oahe unit. These contracts, together with the master contract being a part thereof, govern the furnishing of water and the operation and maintenance of the water supply and distribution works by the Conservancy Sub-District and will insure the payment of construction, operation, maintenance, and replacement costs by each irrigation district.

The estimated construction cost of the Oahe unit is \$194,567,000. Additional costs include \$582,000 for interest during construction and \$42,649,000 assigned costs for mainstem reservoir storage. Allocated costs for the Oahe unit include \$205,790,000 for irrigation, \$11,858,000 for M&I water, \$2,631,000 for recreation, \$11,107,000 for fish and wildlife, \$1,234,000 for flood

control, \$2,000,000 for highway betterment, and \$3,-178,000 for future capacity.

CONTRACTS

- 1962, September 10: Water service contract 14-06-W-129 with the city of Huron provides for graduated payments during the first 7 years with uniform payments after that date. Payments will aggregate \$610,200 during the 20-year term of the contract, with \$462,771 for repayment of the capital investment and \$147,429 for interest on the unpaid balance. Water service began May 1, 1965, and at June 30, 1969, payments on the capital investment totalled \$87,300.
- 1969, January 8: Master contract 14-06-10-079 between United States and the Oahe Conservancy Sub-District, under which the Conservancy Sub-District has the responsibility for the OM&R and payment of the allocated construction costs of both the supply and distribution works of the Oahe unit.
- 1969, December 23: Participating contracts between the Oahe Conservancy Sub-District and the Spink County Irrigation District or the West Brown Irrigation District which will be served by the Oahe unit works.
- 1969, December 23: Security contracts between the United States and the Spink County Irrigation District or the West Brown Irrigation District which will be served by the Oahe unit works under which the Irrigation District guarantees its respective share of the Conservancy Sub-District's payment obligations to the United States under the master contract.

OWL CREEK UNIT—BIGHORN BASIN DIVISION, WYOMING

The Owl Creek unit, located in central Wyoming, extends from the confluence of Owl Creek and the Bighorn River westward about 30 miles along Owl Creek.

The primary purpose of the unit is to supply supplemental water for approximately 13,000 acres of land, some of which are Indian lands in the Arapahoe Ranch.

The principal facility of the unit is Anchor Dam, a concrete thin-arch structure in the narrow gorge on the South Fork of Owl Creek 35 miles west of Thermopolis. The dam is designed to provide for the conservation and control of Owl Creek water to assure a supplemental water supply for 9,733 acres of land downstream, including 1,742 acres in the Arapahoe Ranch. The dam was constructed between March 1957 and November 1960 but leakage difficulties in the reservoir area have delayed the announcement of the availability of water.

The Lucerne Pumping Plant No. 1 contains two pumping units that operate under a 67-foot head delivering 40 cubic feet per second from the Bighorn

River to the original Lucerne Ditch and two units operating under a 136-foot head that deliver 44 cubic feet per second into the Lucerne Relift Canal to supply Plant No. 2. Pumping Plant No. 2 contains two units operating under a 24.5-foot head delivering 33 cubic feet per second from the Relift Canal to the Dempsey Ditch. These plants and the distribution system provide a supplemental supply of water for an additional 3,260 acres.

All of the acreage served by the dam and the pumping plants except that in the Arapahoe Ranch is in the Owl Creek Irrigation District. 10,921 acres of the total of 11,251 acres were irrigated in 1969, with a total crop value of \$618,100 or \$56.60 per acre. The cumulative crop value from 1957 through 1969 amounts to \$6,172,660.

The estimated cost of construction of the Owl Creek unit is \$7,260,821, of which \$7,048,393 is allocated to irrigation, \$109,260 to fish and wildlife, \$86,291 to flood control and navigation, and \$16,877 to O&M costs.

In 1950, a contract was executed by the Owl Creek Irrigation District, but execution by the United States was withheld because of the Wyoming Supreme Court decision which stated that the contract could not be enforced against objecting landowners until the excess land provisions were deleted from the contract. The excess land laws were made inapplicable to the Owl Creek unit by the act of August 28, 1954 (68 Stat. 690), after which the Board of Commissioners renewed its efforts in favor of constructing the unit. An order on May 11, 1955, by the district court of Hot Springs County included in the District the lands of some of the former objectors. As a result of this and of further investigation, a new contract between the Owl Creek Irrigation District and the United States was entered into on October 28, 1955, and construction of the Lucerne pumping plant and relift was initiated. Lucerne and Lucerne Relift pumping plants were completed in 1956 and responsibility for their operation and maintenance was transferred to the District in 1957.

Repayment contract.—The water-service contract with the Owl Creek Irrigation District, dated October 28, 1955, No. 14-06-600-1730, provides for the repayment of \$23,269 each year for a period of 40 years after the Government gives the District notice that the construction of the Owl Creek unit is sufficiently complete to permit the furnishing of the District water supply to District lands. The per-acre payments to be made by the water users are based upon a benefit factor, derived from a combination of three items,

namely: (1) amount of supplemental water to be supplied, (2) geographic differences in crop adaptability, and (3) land classification. The contract also provides that the District shall enter into an agreement with the Shoshone and Arapahoe Tribes for water service to the Arapahoe Ranch in return for the Tribes' assuming an appropriate share of the cost of operation of the unit water supply works. Negotiations on this contract have been suspended, pending the availability of supplemental water from Anchor Reservoir.

Should the Indian lands in the unit pass into non-Indian ownership and become part of the irrigation district, the District's water service contract would be amended to provide for the payment of an additional annual construction component of about \$2,900 or about \$116,000 over a 40-year period. The anticipated 40-year return of construction cost by the District and Arapahoe lands would amount to about \$1,310,000. The balance of the reimbursable construction costs (\$5,755,270) would be repaid by other sources of revenue from the Missouri River Basin project.

RAPID VALLEY UNIT—CHEYENNE DIVISION, SOUTH DAKOTA

Pactola Dam and Reservoir is located on Rapid Creek, a tributary of the Cheyenne River about 15 miles west of Rapid City in Pennington County, South Dakota. Construction began in November 1952 and was completed in September 1956 when water storage began. Water was available for water users in 1958.

The purpose of the dam and reservoir is to provide municipal water for Rapid City and the Ellsworth Air Force Base, and supplemental water for 8,900 acres in the Rapid Valley Water Conservancy District, located along Rapid Creek downstream from Rapid City in Pennington County. The city and the District also receive water from the Rapid Valley project consisting of the Deerfield Dam and Reservoir. Other purposes include flood protection for Rapid City and lands adjacent to Rapid Creek, recreation, and fish and wildlife.

Of the total of 8,900 irrigable acres for service, 7,100 were acres irrigated in 1969, with a total crop value of \$373,955 or \$52.67 per acre. The dam and reservoir are operated by the United States with appropriated funds.

Pactola Dam is a zoned earthfill structure with a height of 230 feet above streambed and a length of 1,255 feet on the main crest. At top of conservation pool storage it has a storage capacity of 56,000 acre-feet with a surface area of 860 acres. Water is delivered

at the outlet works of Pactola Dam. Rapid City diverts its water from Rapid Creek for use in its municipal water system at pumping plants located on Rapid Creek within the city limits. Water for the Ellsworth Air Force Base is diverted through the same system.

Total cost of the Rapid Valley unit is \$7,842,956, of which \$1,000,000 is applicable to the United States Air Force as its share for a water supply and is non-reimbursable. The total cost is allocated as follows: irrigation \$1,952,000, municipal water \$1,783,000, United States Air Force \$1,000,000, flood control \$2,489,068, fish and wildlife \$615,400, and O&M equipment \$3,488.

The dam is operated by the Bureau of Reclamation with funds advanced by Rapid City.

CONTRACTS

1952, October 20: Water service contract 14-06-W-51 with city of Rapid City. Payments by variable annual sums, ranging by 5-year periods from \$24,000 to \$107,000 for period of 40 years. City is to furnish water to Ellsworth Air Base in amounts not to exceed 1,810 acre-feet annually upon terms and conditions agreed upon by the city and United States Air Force. Under this contract the city has priority for 14,000 acre-feet, including the quantity available to the city in Deerfield Reservoir on April 30 of each year.

1961, January 6: Water service contract 14-06-600-5312 with Rapid Valley Water Conservancy District. Payments of \$1,000 annually, plus \$1.25 per acre-foot of water requested, for 40 years. The District may deliver any excess waters, not needed for above contracts, for any industrial demand that may arise during the term of this contract, for \$14.61 per acre-foot, to be paid to the District in advance.

Water service revenues at June 30, 1969, totaled \$475,621.

SARGENT UNIT—MIDDLE LOUP DIVISION, NEBRASKA

The Sargent unit in central Nebraska was developed primarily for the irrigation of land along the Middle Loup River between the towns of Milburn and Comstock. The principal project works consist of the Milburn diversion dam to serve lands on both sides of the river, the Sargent Canal with appurtenant laterals, and a small pumping installation to serve land north of the river.

The original plan called for two irrigation blocks to be established in the unit—block I to receive water from the Sargent Canal on the north side of the river, and block II to receive water from the Lillian Canal on the south side of the river. However, block II, to be

served by the Lillian Canal, has been dropped from the plan. Thus, the irrigable area for this unit was decreased to 13,349 acres.

The total estimated project cost of the Sargent unit is \$7,446,070, which includes \$313,000 sub-allocation from the Farwell unit for storage rights in the Sherman Dam and Reservoir. \$296,000 is allocated to nonreimbursable flood control. The reimbursable allocation is \$7,149,147 to irrigation and \$923 to recreation.

The costs of features are:

Milburn diversion works	\$1,059,277
Sargent Canal sections 1, 2, and 3	3,173,049
Sargent lateral sections 1 and 2	889,544
Sargent canal—detention dikes and channels— sections 2 and 3	975,467
Sargent—second stage	206,791
Other irrigation facilities	51,560
Balance to complete	622,436
Total irrigation plant	6,978,124
Settlers assistance	26,791
Future year capacity	69,379
Property transfers	58,776
Total cost	7,133,070
Costs assigned from Farwell unit	313,000
Total	7,446,070

A total of 13,144 acres were irrigated in 1969, producing crops with a total gross value of \$1,260,833 for an average of \$95.92 per acre. The irrigable area for service is 13,349 acres.

Repayment contracts.—A combination water-service and repayment contract was entered into September 11, 1954, with the Sargent Irrigation District. This contract was amended March 23, 1957, as a part of interrelated water service, repayment, and operating arrangements among the Sargent Irrigation District, the Farwell Irrigation District, and the Loup Basin Reclamation District. The three interrelated contracts with the three districts were all executed March 23, 1957. Under this arrangement the Loup Basin Reclamation District, which includes both irrigation districts, has a water-service contract with the United States and delivers water to the two irrigation districts under service contracts with each. The Loup Basin Reclamation District operates and maintains the water-supply works serving each irrigation district, and under operating agreements with the two irrigation districts also operates and maintains the distribution works of the two irrigation districts.

The repayment contract with the Sargent Irrigation District, as amended, contains a construction charge

obligation to cover the costs of constructing the distribution works and the portion of the drainage works required immediately. The District is to construct additional drainage facilities, estimated to cost \$200,000, as required in the future. The Sargent District's construction charge obligation for block I is \$1,450,200. The Sargent District will pay its construction obligation over a 40-year repayment period following a 10-year development period. First payment of \$18,127 was made in fiscal year 1969.

After payout of the District's fixed construction obligation, the equivalent of the annual construction installment, \$36,255, is to be converted to water service charge for 10 additional years. This will increase repayment by an additional amount of \$362,550. Block I has irrigable acreage for service of 13,349 acres and a 10-year development period, which commenced January 1, 1959, and ended December 31, 1968.

Although the Sargent Irrigation District will not make any water-service payments directly to the United States, its share of the water-service payments to be made by the Loup Basin Reclamation District is estimated at \$962,550 during a 50-year repayment period, including the \$362,550 discussed above. A portion of that payment will be obtained from an ad valorem tax applied to property in the reclamation district. All water-service charges to the Loup Basin Reclamation District, both fixed annual charges and additional water charges, will constitute net returns to the United States to apply on the costs of constructing the water supply works. Reimbursable construction costs in excess of the payment capacities of the districts will be amortized by power revenues from the Missouri River Basin project.

CONTRACTS

1954, September 11: Contract 14-06-W-72, original contract with the Sargent Irrigation District, written under sections 9(d) and 9(e) of the 1939 Reclamation Project Act, provided for a construction obligation of \$1,785,400, payable in 40 equal annual installments following a 10-year development period.

(NOTE: \$1,450,200 is apportioned to block I.)

1957, March 23: Contract 14-06-W-72, amendment No. 1, with the Sargent Irrigation District, primarily to delete the water service provisions which in turn were supplanted simultaneously in a contract with the Loup Basin Reclamation District of which the Sargent Irrigation District is an integral part. The Loup Basin Reclamation District via inter-district contracts furnishes water to both the Sargent and Farwell Irrigation Districts.

1957, March 23: Contract 14-06-700-1371 with the Loup Basin Reclamation District provides water service for

the Farwell and Sargent Irrigation Districts. The term of this contract is for 40 years and may be renewed.

On or before May 1 of each year the reclamation district shall pay to the United States the sum of \$45,500 for a water supply of 113,500 acre-feet. Additional water, if available, may be purchased by the advance payment of \$1 per acre-foot. Commencing with the first year in which water becomes available, the District within a 5-year period will accumulate a reserve fund of \$75,000.

1969, May 13: Amendment No. 2 to contract 14-06-W-72 with Sargent Irrigation District:

- (1) reduces emergency O&M reserve fund from \$50,000 to \$30,000, and
- (2) adds variable repayment plan, based on agricultural price index and parity price ratio.

Summary of status of repayment contracts:

Total value of construction charge obligation	\$1,450,200
Total matured charges	18,127
Total matured charges repaid	18,127
Total matured charges unpaid	0

SAVAGE UNIT—YELLOWSTONE DIVISION, MONTANA

Savage unit, 2,215 acres of irrigable land, is a pumping unit of the Missouri River Basin project located in northeastern Montana.

Construction was begun in April 1949, and completed on December 6, 1949, with water delivered in May 1950. The major irrigation works include a pumping plant having 42 cubic-feet-per-second capacity and an 84-foot lift; single 1.370-foot discharge line; 7.8 miles of main canal; and 6.2 miles of laterals and 1.1 miles of drains.

During the calendar year 1969, there were 2,026 acres irrigated, with a total crop value of \$240,579 or \$118.74 per acre. The total crop value from 1950 through 1969 amounts to \$2,092,311.

The total construction cost of the unit is \$567,259, including \$38,000 assigned Lower Yellowstone project costs, all allocated to irrigation. Of this amount, the water users will return \$143,750 on distribution system costs, plus an undetermined amount on the supply system costs. The remainder is to be covered by other sources of revenue from the Missouri River Basin project.

On July 14, 1948, Savage Irrigation District entered into a repayment contract with the United States.

Repayment and water service contracts.—The water service contract for use of the supply works is for 40 years, beginning in 1950. The variable payment formula has been employed and the annual charge is obtained by multiplying the product of the base charge (\$5,833 per year) and a production index factor (current gross crop value by base crop value—\$39.70 per acre) by the agricultural parity price ratio. This charge shall not be more than 200 percent nor less than 25 percent of the base charge, but in no case less than operation and maintenance of the supply works. Of the \$5,833 per year water-service payment, it is estimated that \$950 per year will represent the return to construction costs of water supply works.

The construction cost of the distribution works will be repaid over a 40-year period following a 10-year development period which started in 1950. The base annual installment is \$3,594, subject to a variable payment formula similar to that for water-service.

Summary of status of repayment contracts:

Total value of contracted repayment	\$143,750
Total matured charges	35,311
Total matured charges repaid	35,311
Total matured charges unpaid	0

Water service revenues at June 30, 1969, were \$11,924.

On August 8, 1950, the board of control of the Lower Yellowstone project assumed operation of the unit under "Agreement among the United States, Lower Yellowstone Irrigation Districts Nos. 1 and 2, and Savage Irrigation District," dated February 1, 1949.

CONTRACTS

1948, July 14: Contract 11r-1525, original contract with Savage Irrigation District, written under sections 9(d) and 9(e) of the 1939 Reclamation Project Act, provides for repayment of a construction charge obligation of \$143,750 in 40 years under a variable formula payment plan with an annual base charge of \$3,593.75.

1957, August 16: Contract 11r-1525, amendment No. 1, with Savage Irrigation District extending the development period to 10 years with first installment of construction charge due August 15, 1960.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1961-----	\$143,750	\$2,983	-----	\$2,983	\$2,983	-----	\$2,983	\$2,983
1962-----	143,750	2,904	-----	2,904	2,904	-----	2,904	5,887
1963-----	143,750	3,076	-----	3,076	3,076	-----	3,076	8,963
1964-----	143,750	4,202	-----	4,202	4,202	-----	4,202	13,165
1965-----	143,750	3,857	-----	3,857	3,857	-----	3,857	17,022
1966-----	143,750	4,450	-----	4,450	4,450	-----	4,450	21,472
1967-----	143,750	4,016	-----	4,016	4,016	-----	4,016	25,488
1968-----	143,750	4,427	-----	4,427	4,427	-----	4,427	29,915
1969-----	143,750	5,396	-----	5,396	5,396	-----	5,396	35,311
Total -----	-----	35,311	-----	35,311	35,311	-----	35,311	-----

**SHADEHILL UNIT—GRAND DIVISION,
SOUTH DAKOTA**

The Shadepill Dam and Reservoir is located on the Grand River in Perkins County, South Dakota. Construction of the dam was begun in April 1949 and completed in August 1951. Its purpose is to provide for flood control, water for irrigation of approximately 5,700 acres of land in Perkins and Corson Counties, recreation, and fish and wildlife conservation. A municipal water supply for the town of Lemmon could be obtained from the reservoir. Water storage began in July 1950 and water was available in 1952.

The completed feature is Shadepill Dam, an earthfill structure which will store 139,700 acre-feet of water; an additional 217,700 acre-feet of exclusive flood control storage and 211,200 acre-feet of surcharge flood control storage is provided.

Construction of additional facilities to permit the irrigation of land, and to supply water for municipal purposes, will not be undertaken until water service and repayment arrangements have been completed.

The total cost of the Shadepill unit is \$7,274,845, which has been allocated tentatively as follows: irrigation, \$2,711,085; recreation, \$25,156 (reimbursable); flood control, \$4,304,100; fish and wildlife, \$229,030 (nonreimbursable); and O&M equipment \$5,474.

Shadepill Dam and Reservoir is being operated by the Bureau of Reclamation with appropriated funds.

TRANSMISSION DIVISION—TEN STATES

The Transmission division of the Missouri River Basin project includes the necessary facilities required to market power and energy generated at powerplants in the Missouri River Basin area. This area comprises all or parts of the ten States of Montana, Wyoming, Colorado, North Dakota, South Dakota, Nebraska,

Kansas, Minnesota, Iowa, and Missouri. The purpose of the transmission system is to make power and energy generated at reservoir projects under control of the Department of the Army, Corps of Engineers, and multipurpose projects of the Bureau of Reclamation available in wholesale quantities for sale to facilities owned by the Federal government, public bodies, co-operatives, and privately owned companies. Generating capacity—now existing, totals 2,770,162 kilowatts in the Missouri River Basin area.

Major features of the transmission system as presently designed and scheduled consist of approximately 242 circuit miles of 345,000-volt transmission lines; 4,414 circuit miles of 230,000-volt transmission lines, of which 736 miles are double-circuit; 5,241 circuit miles of 161,000- and 115,000-volt transmission lines; 401 circuit miles of 69,000 and lower voltage transmission lines; and, in addition, transmission substations with an ultimate installed transformer capacity of about 6,230,920 kilovolt-amperes. Additional substation capacity and some line extensions will be required. The estimated cost provides for additional investments. Associated general property investments, such as adequate dispatching and communication system, essential warehouses, shops, repair, and transportation equipment, are also major items of the transmission system as presently developed.

The total cost of the Transmission division is now estimated as \$361,107,653 (\$294,217,196—Region 6 including Ft. Peck, and \$66,890,457—Region 7). This sum is fully reimbursable and is allocated entirely to the power system of the Missouri River Basin project for repayment from sale of power and energy under contracts with cooperatives, public bodies, Federal authorities, and private utilities.

Of the 386 customers supplied in calendar year 1969,

revenues from 307 were under \$100,000 each. The major remaining customers are tabulated below. Major wheeling contracts are also included.

The features of the Transmission division are operated and maintained by the United States and are financed directly from funds appropriated for that purpose.

The MRB power system is subdivided into the Eastern and Western divisions for operations. Major transmission networks interconnect powerplants with load centers within each area, tie the Eastern and Western divisions together and interconnect with other MRB power suppliers and Federal projects both within and outside the MRB area.

The Eastern division distributes power from the Corps of Engineers' Fort Peck, Garrison, Oahe, Big Bend, Fort Randall and Gavins Point Powerplants and from the Bureau's Canyon Ferry and Yellowtail Powerplants. Power facilities of the Fort Peck project are

fully integrated with MRB facilities and Canyon Ferry's output is delivered to the Federal system by wheeling. Yellowtail switchyard is a major point of interconnection and the powerplant's generation is scheduled between the Eastern and Western divisions in accordance with operating needs. Transmission facilities are also being utilized for delivery of power from unit No. 1 in Basin Electric's Leland Olds steamplant to load centers under long-term contractual arrangements.

The Western division network interconnects the powerplants of the Boysen, Glendo, and Kortes units of the Missouri River Basin project and the power systems of Shoshone, Riverton, Kendrick, North Platte, and Colorado-Big Thompson projects, which are within the Missouri River Basin but are administratively separate from the larger Missouri River Basin project. The other generating plant of the Glendo unit, Fremont Canyon, is also integrated into this network. The power is distributed to substations in Wyoming, Nebraska, and Colorado.

MAJOR POWER CONTRACTS—MISSOURI RIVER BASIN INTEGRATED SYSTEM

Customer	Contract no.	Contract date	Termination date	Present contract rate of delivery, kilowatts
Region 6				
Denison, Iowa -----	14-06-600-6703	Aug. 13, 1962	Dec. 31, 1980	2,671 F
Harlan, Iowa -----	14-06-600-8995	Apr. 27, 1966	Dec. 31, 1985	2,104 AF
Alexandria, Minn -----	14-06-600-6754	Nov. 16, 1962	June 30, 1987	3,721 F
Detroit Lakes, Minn -----	14-06-600-5898	Oct. 16, 1961	Dec. 31, 1980	644 AF
East Grand Forks, Minn -----	14-06-600-6204	Mar. 16, 1962	Dec. 31, 1980	3,228 F
Litchfield, Minn -----	14-06-600-6717	Sept. 12, 1962	Dec. 31, 1971	2,132 AF
Luverne, Minn -----	14-06-600-7001	Feb. 18, 1963	Dec. 31, 1981	1,835 F
Marshall, Minn -----	14-06-600-6719	Sept. 12, 1962	Oct. 31, 1987	2,088 AF
Melrose, Minn -----	14-06-600-6180	Dec. 19, 1961	Dec. 31, 1980	3,857 F
Moorhead, Minn -----	14-06-600-6205	Mar. 19, 1962	Dec. 31, 1980	1,594 AF
St. James, Minn -----	14-06-600-6465	June 1, 1962	Dec. 31, 1981	5,635 F
Thief River Falls, Minn -----	14-06-600-6459	May 25, 1962	Dec. 31, 1981	665 AF
Willmar, Minn -----	14-06-600-8786	Sept. 19, 1965	Dec. 31, 1984	3,078 F
Windom, Minn -----	14-06-600-6176	Feb. 8, 1962	Dec. 31, 1980	811 AF
Worthington, Minn -----	14-06-600-8991	Apr. 20, 1966	Dec. 31, 1984	2,956 F
Hastings, Nebr -----	14-06-600-8054	Apr. 20, 1964	Dec. 31, 1982	1,946 AF
Nebraska City, Nebr -----	14-06-600-5639	July 31, 1961	Dec. 31, 1985	2,046 F
Grafton, N. Dak -----	14-06-600-6228	Apr. 19, 1962	Dec. 31, 1980	1,056 AF
Valley City, N. Dak -----	14-06-600-9314	July 17, 1967	May 31, 1987	19,407 F
Brookings, S. Dak -----	14-06-600-6168	Jan. 15, 1962	Dec. 31, 1980	8,593 AF,D
Madison, S. Dak -----	14-06-600-6968	Jan. 3, 1963	Dec. 31, 1981	3,025 F
Pierre, S. Dak -----	14-06-600-9170	May 29, 1967	Dec. 31, 1985	552 AF
Sioux Falls, S. Dak -----	14-06-600-9046	Aug. 10, 1966	Dec. 31, 1985	5,384 F
Vermillion, S. Dak -----	14-06-600-6201	Mar. 13, 1962	Dec. 31, 1980	1,192 AF
Watertown, S. Dak -----	14-06-600-8756	June 4, 1965	Dec. 31, 1984	3,903 F
Nebraska Public Power District -----	14-06-700-124	May 28, 1954	Dec. 31, 1989	1,500 AF
Omaha Public Power District -----	14-06-600-8532	Sept. 23, 1964	Dec. 31, 1983	3,167 F
Basin Electric Power Cooperative -----	14-06-600-6970	Nov. 29, 1962	Dec. 31, 2001	667 AF
Central Iowa Power Cooperative -----	14-06-600-7814	Dec. 31, 1963	Dec. 31, 1982	4,935 F
Central Iowa Power Cooperative (Creston division) -----	14-06-600-7463	May 27, 1963	Dec. 31, 1981	978 AF
Central Montana G & T -----	14-06-600-9037	July 14, 1966	Dec. 31, 1985	10,703 F
Central Power Electric Cooperative -----	I79r-1593	Mar. 14, 1950	Dec. 31, 1985	1,150 AF
Cooperative Power Assn. -----	14-06-600-8772	Aug. 11, 1965	Feb. 28, 1989	7,358 F
(includes Nobles Coop. Elec. Assn.) ¹ -----				2,000 AF
Corn Belt Power Cooperative -----	14-06-600-7240	May 3, 1963	Dec. 31, 1982	3,439 F
Dairyland Power Cooperative -----	14-06-600-9065	Sept. 23, 1966	Oct. 31, 1971	991 AF
	14-06-600-9157	May 1, 1967	Aug. 31, 1970	4,763 F

¹ Nobles Coop. Elec. Assn. was served as a separate customer in calendar year 1969.

REPAYMENT OF RECLAMATION PROJECTS

MAJOR POWER CONTRACTS—MISSOURI RIVER BASIN INTEGRATED SYSTEM—Continued

Customer	Contract no.	Contract date	Termination date	Present contract rate of delivery, kilowatts
East River Electric Power Cooperative-----	14-06-600-8936	Dec. 2, 1965	Dec. 31, 1985 }	127,701 F,W
Glacier Electric Cooperative-----	14-06-600-5604	June 14, 1961	Dec. 31, 1980 }	242 AF
Grand Electric Cooperative-----	14-06-600-4173	Dec. 28, 1959	June 30, 1970	8,750 F
Kem Electric Cooperative-----	14-06-600-6972	Nov. 15, 1962	Dec. 31, 1980	6,936 F
L & O Power Cooperative-----	14-06-600-9038	July 14, 1966	Dec. 31, 1984	8,279 F
Minnesota Valley Cooperative-----	14-06-600-5603	June 16, 1961	Dec. 31, 1980	16,758 F,W
Minnkota Power Cooperative-----	14-06-600-8928	Dec. 14, 1965	Dec. 31, 1983	12,347 F,W
Moreau-Grand Electric Cooperative-----	14-06-600-3221	Mar. 18, 1958	Dec. 31, 1977	50,225 F,W,D
Mor-Gran-Sou Electric Cooperative-----	14-06-600-6973	Nov. 15, 1962	Dec. 31, 1981	4,816 F
Northwest Iowa Power Cooperative-----	14-06-600-9002	Jan. 12, 1966	Dec. 31, 1984	6,296 F
Rosebud Electric Cooperative-----	14-06-600-8944	Jan. 17, 1966	Sept. 30, 1990	48,315 F,W
Rural Cooperative Power Assn.-----	14-06-600-7018	Mar. 18, 1963	Dec. 1, 1987	7,249 F
Rushmore Electric Power Cooperative-----	14-06-600-3212	Dec. 21, 1957	Dec. 31, 1976	2,500 F,D,W
	14-06-600-6974	Nov. 14, 1962	Dec. 31, 1994	22,894 F
United Power Assn-----	14-06-600-9361	Dec. 15, 1967	Dec. 31, 1977	5,000 AF
Upper Missouri G & T-----	14-06-600-7827	Jan. 29, 1964	Dec. 31, 1994	R,M,D
West Plains Electric Cooperative-----	14-06-600-8942	Jan. 12, 1966	Dec. 31, 1984	44,256 F
Iowa Electric Light & Power Co.-----	14-06-600-7518	Aug. 26, 1963	Dec. 31, 1982	5,700 F
Iowa Power & Light Co.-----	14-06-600-9113	Dec. 23, 1966	Dec. 31, 1981	R,M,D,W
Iowa Public Service Co.-----	14-06-700-2007	Feb. 12, 1959	Oct. 31, 1978	25,000 FP,D
Minnesota Power & Light Co.-----	14-06-600-9055	Sept. 13, 1966	Oct. 31, 1971	M,D
Montana-Dakota Utilities Co.-----	14-06-600-2070	Nov. 21, 1956	Dec. 31, 1985	R,M,D
Northern States Power Co.-----	14-06-600-1556	June 14, 1955	Dec. 31, 1976	D,W
	14-06-600-1940	July 2, 1956	Dec. 31, 1976	R,M,W
Northwestern Public Service Co.-----	14-06-600-2039	Oct. 23, 1956	Dec. 31, 1976	D
Otter Tail Power Co.-----	179r-1592	Mar. 14, 1950	Dec. 31, 1976	51,000 FP,R,M,D,W
State of South Dakota-----	14-06-600-9714	Jan. 12, 1968	Nov. 30, 1987	R,M,D,W
				13,670 F
U.S. Air Force, SAC-----	14-06-600-7232	Apr. 23, 1963	Dec. 31, 1982	11,750 AF
University of Nebraska-----	14-06-600-6748	Oct. 11, 1962	Dec. 31, 1970	10,100 F
University of North Dakota-----	14-06-600-8034	Feb. 10, 1964	Dec. 31, 1980	1,460 F
				4,100 F
				200 AF

F = Firm. AF = Additional firm. SF = Seasonal firm. FP = Firm peaking. D = Dump. M = Maintenance.
R = Replacement. S = Supplemental. W = Wheeling service provided for Bureau.

MAJOR POWER CONTRACTS—MISSOURI RIVER BASIN INTEGRATED SYSTEM

Customer	Contract no.	Contract date	Termination date	Contract rate of delivery, kilowatts	
				Summer	Winter
Region 7					
Fort Collins, Colo -----	14-06-700-6155	Feb. 25, 1966	Mar. 31, 1987	9,500	18,350 F
Fort Morgan, Colo -----	14-06-700-6023	Nov. 22, 1965	Mar. 31, 1985	8,600	7,600 F
Gering, Nebr -----	14-06-700-5062	Aug. 3, 1965	Aug. 3, 1970	8,500	9,000 F
Longmont, Colo -----	14-06-700-6198	May 5, 1966	Mar. 31, 1987	10,500	11,100 F
Loveland, Colo -----	14-06-700-6158	Mar. 1, 1966	Mar. 31, 1987	7,650	8,900 F
Cody, Wyo -----	14-06-700-6197	May 5, 1966	Mar. 31, 1986	3,080	4,100 F
Torrington, Wyo -----	14-06-700-6182	Apr. 13, 1966	Sept. 30, 1985	3,600	4,440 F
Intermountain REA -----	14-06-700-6046	Feb. 4, 1966	Mar. 31, 1985	16,650	15,100 F
Tri-State Generation and Transmission Assn. ----	14-06-700-6196	May 5, 1966	Dec. 31, 1987	205,415	180,115 F,W
Public Service Co. of Colorado-----	14-06-400-2433	May 9, 1962	June 1, 1987	--	-- W
Pacific Power and Light Co.-----	14-06-400-2437	May 16, 1962	June 1, 1987	--	-- F,W
Nebraska Public Power District-----	14-06-700-3162	Dec. 26, 1961	Jan. 1, 1973	4,000	4,000 F,W
Black Hills Power and Light Co.-----	14-06-700-4559	Nov. 26, 1963	Jan. 1, 1986	--	-- W
Francis E. Warren Air Force Base-----	181r-1460	June 15, 1951	Indefinite ---	3,300	3,300 F
Rushmore Electric Power Cooperative-----	14-06-700-4758	Jan. 25, 1965	Jan. 1, 1986	3,900	4,600 F

F = Firm sale.
W = Contract provides for Bureau to wheel over utility lines.

WEBSTER UNIT—SOLOMON DIVISION, KANSAS

The Webster unit, authorized under the Flood Control Act of 1944 (58 Stat. 887), is located in Rooks and Osborne Counties, Kansas. The principal features of the unit include Webster Dam and Reservoir completed in 1956, Woodston Diversion Dam completed in 1959, and Osborne Canal and laterals completed in 1962.

A total of 6,951 acres were irrigated in 1969, producing crops with a total gross value of \$937,253 for an average of \$134.84 per acre. The irrigable area for service is 8,500 acres.

Statement of cost and repayment:

Webster Dam and Reservoir	\$11,765,985
Irrigation facilities	5,463,222
Balance to complete	372,290
Total plant, property, and equipment	17,601,497
Settlers assistance	30,702
Property transfers	49,468
Total cost	17,681,667
Allocation:	
Reimbursable:	
Irrigation	10,275,767
Recreation facilities	46,000
Nonreimbursable:	
Flood control	6,910,600
Fish and wildlife	449,300
Total	17,681,667

The District assumed operation and maintenance responsibility of the distribution works on January 1, 1962. The multipurpose Webster Dam and Reservoir is operated and maintained by the Bureau of Reclamation, with 22.2 percent of the cost being advanced by the Webster Irrigation District, and 77.8 percent from current annual appropriations for the nonreimbursable flood control function.

Repayment contract.—A combination water-service and repayment contract was entered into April 24, 1957, with Webster Irrigation District. The repayment contract contains a construction charge obligation in the amount of \$1,172,000 to cover costs of constructing the distribution works, and the portion of drainage works required immediately. Repayment by the District will be in equal annual installments over a 40-year repayment period following a 10-year development period. The development period commenced on January 1, 1962, and ends December 31, 1971. The contract provides for the use, at the District's option, of a variable repayment plan based on farm commodity

prices and the national agricultural parity price ratio.

The District will also make annual water-service payments to the United States sufficient to cover the District's share of the O&M cost of Webster Dam and Reservoir but not less than \$4,500 per year.

During a 50-year repayment period, payment by the District of \$157,500 pursuant to its October 7, 1966, contract, and water service payments pursuant to its 1957 contract, and a future renewal of the water service portion thereof, are expected to cover the District's share of Webster Reservoir O&M costs and to return an estimated \$489,875 to apply on the construction cost of the water supply works serving the District. The reimbursable construction cost of water supply works in excess of water user ability to pay will be returned from surplus power revenues of the Missouri River Basin project.

CONTRACTS

1957, April 24: Combined water service and repayment contract 14-06-700-1375 with Webster Irrigation District No. 4 provides for repayment in 40 years of construction cost obligation of \$1,172,000 for the distribution and drainage system and provides for repayment in 50 years of \$508,000 for water supply works. Water service rates \$3,700 plus \$1 per acre-foot for water in excess of 13,400 acre-feet. Initial water delivery in July 1960.

1966, October 7: Amended contract 14-06-700-1375 with Webster Irrigation District No. 4 extended the development period to 10 years; eliminated the \$1 per acre-foot charge, and in lieu thereof, fixed an additional obligation of \$157,500 to offset anticipated loss of revenue from sale of water above the three-fourths supply at \$1 per acre-foot. The additional obligation will be repaid over a 40-year period concurrently with payments under the 1957 contract. Payments on construction obligation are due one-half on or before April 1 and one-half on or before November 1.

Status of the repayment contract:

Total value of construction charge obligation	\$1,329,500
Total matured charges	0

YELLOWTAIL UNIT, MONTANA-WYOMING

The Yellowtail unit is on the Bighorn River in south-central Montana. Yellowtail Dam site is about 45 miles by road south and west of Hardin, Mont.

Construction of the Yellowtail Dam was authorized by the Flood Control Act of December 22, 1944, and funds were first appropriated to start construction in fiscal year 1956. The damsite and a portion of the reservoir site are in the Crow Indian Reservation. Construction was delayed pending satisfactory arrangements with the Crow Indian Tribe for right-of-way.

Joint resolution of July 15, 1958, 72 Stat. 361, Public Law 85-523, contained provisions for the transfer from funds appropriated to the Bureau of Reclamation to the credit of the Crow Tribe \$2,500,000 for compensation for lands required for right-of-way. This resolution recognized the right of the tribe to bring suit to determine whether an additional amount was due as just compensation but provided for the immediate transfer to the United States of the right, title, and interest in the lands required. An additional payment of \$2,592,621.58 (\$2,500,000 principal plus interest at 5 percent) was made to the Tribe on June 18, 1964, under a Court of Claims final settlement. The prime contract for construction was awarded in 1961 and major construction was completed and the first power generated in 1966.

The total estimated cost of the unit including \$4,319,000 interest during construction is \$95,320,825, allocated \$14,975,000 to irrigation, \$45,959,413 to commercial power, \$11,097,587 to pumping power, \$14,695,000 to municipal and industrial water, \$817,000 to fish and wildlife, \$7,532,825 to flood control, and \$244,000 to nonreimbursable access road. In addition, \$698,577 repayment obligation assumed from National Park Service is allocated to recreation.

Principal features of the unit are the Yellowtail Dam, Powerplant, and Afterbay Dam. Yellowtail Dam is a concrete thin-arch structure with a structural height of 525 feet, with 500 feet above the streambed. Both abutments of the dam rest in solid rock for the full height. The dam has a crest length of 1,480 feet, a top width of 22 feet, and a maximum base width of 145 feet. Construction of the dam was started on May 10, 1961, and completed in 1966.

The powerhouse is along the toe of the dam and completely occupies the riverbed section of the canyon. The four generating units, each with a capacity of 62,500 kilowatts, are powered by four hydraulic turbines supplied by individual penstocks through the dam. The Yellowtail switchyard is on the right (east) rim above the canyon.

Yellowtail Reservoir is regulated for multipurpose use, and impounds 1,375,000 acre-feet. Irrigation, municipal and industrial water, flood control, recreation, and hydroelectric power production are the major purposes of the reservoir. Retention of sediment behind the dam is a material benefit. Fish and wildlife resources are expected to be improved and many recreational uses developed.

The Yellowtail Afterbay Dam, $2\frac{1}{4}$ miles downstream from Yellowtail Dam, re-regulates releases from the powerplant to provide a uniform release to the river,

thus permitting peaking operation of the powerplant.

Yellowtail Reservoir, situated on both sides of the Montana-Wyoming State line, facilitates equitable interstate use of Bighorn River water. The reservoir will provide a water supply for the proposed Yellowstone Pumping units of the Missouri River Basin project located along the Yellowstone River Valley. The proposed Hardin unit, immediately downstream from Yellowtail Dam, will be served largely by means of an irrigation outlet constructed in the dam.

Yellowtail Powerplant generation, combined with the energy produced at other Federal powerplants in the Missouri River Basin, is used to meet the expanding power needs in northern Wyoming, Montana east of the Continental Divide, and portions of western North Dakota. The powerplant will generate an estimated 1,032,774,000 kilowatt-hours of hydroelectric energy annually. This powerplant is a major supply factor in the upper Missouri River Basin.

Municipal and industrial water.—One of the largest known coal reserves in the world is in the upper Missouri River Basin. Underlying parts of eastern Montana, northeastern Wyoming, and western North Dakota are more than 300 billion tons of minable coal. A large portion of this coal is subbituminous, grading into lignites in the eastern portion of Wyoming and Montana and in the Dakotas. Both types of coal are suitable for thermal-electric generation. Subbituminous coal is suitable for the manufacture of hydrocarbons, including gasoline.

Major energy companies are examining this industrial potential, which will involve manufacturing, refining, and pipeline installations. Substantial investments in coal leases, technical research, and geological exploration are being made. Water is essential to the process, and Yellowtail Reservoir can provide at least 697,000 acre-feet of industrial water annually from the Bighorn River. About 268,000 acre-feet have been marketed by an option-type water service contract.

Under terms of the Yellowstone River Compact, 435,000 acre-feet are available for use in Wyoming and 262,000 acre-feet for use in Montana. From the Montana share, 110,000 acre-feet of water has been temporarily reserved to encourage development of coal resources located on the Crow Indian Reservation lands.

The price of water when put to beneficial use is \$11 per acre-foot when taken from the reservoir and \$9 per acre-foot when taken below the outlet works, the difference in price being the value of stored water for power generation. A readiness-to-serve charge of \$0.50

is paid by the contractors for an option period up to 10 years, or until they are ready to beneficially use the water, whichever occurs first.

As of June 30, 1969, there were six contracts executed for 268,000 acre-feet of water for use in Wyoming and in Montana. Water has not yet been delivered un-

der these contracts at June 30, 1969. Applications for water use in Montana on non-Indian lands exceed the water available by 135,000 acre-feet. No contracts were executed prior to June 30, 1969, on Indian lands but they will follow soon after coal leases are obtained from the Tribes.

INDUSTRIAL WATER SERVICE CONTRACTS

Contractor	Date of contract	Contract period (years)	Initial delivery date ¹	Maximum water rate	Quantities of water	
					Maximum acre-feet	Minimum acre-feet
Humble Oil & Refining Co. -----	Dec. 14, 1967	40	-----		50,000	
International Geomarine Corp. -----	June 20, 1969	40	-----		50,000	
Kerr-McGee Corp. -----	Nov. 9, 1967	40	-----		50,000	
Peabody Coal Co. -----	May 24, 1968	40	-----		40,000	
Reynolds Mining Corp. -----	June 19, 1969	40	-----		50,000	
Shell Oil Co. -----	Nov. 22, 1967	40	-----		28,000	

¹ Option period up to 10 years allowed in contract. Contractor pays stand-by service charge of 50 cents per acre-foot during interim development period prior to actual water use.

MOON LAKE PROJECT

UTAH

The Moon Lake project in Duchesne County, near Roosevelt, Utah, was found feasible by the Secretary on January 11, 1935, and approved by the President on November 6, 1935. Funds for construction of the project were provided by emergency relief acts, commencing with the National Industrial Recovery Act of June 16, 1933.

The project was developed to furnish a supplemental water supply to about 75,000 acres of irrigable land. Project features include the Moon Lake Dam and Reservoir, Midview Dam and Reservoir, Yellowstone feeder canal, Duchesne feeder canal and Midview lateral.

The total project cost of \$1,800,860 is allocated to irrigation. The entire amount, less contributions of \$8,092 and Civilian Conservation Corps costs of \$200,500, is repayable under the terms of the repayment contract with the Moon Lake Water Users Association.

The present irrigable area for service is 75,256 acres, with 65,059 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$2,745,685 and \$42.20, respectively.

The project is operated by Moon Lake Water Users Association.

CONTRACT

1934, June 22; 1935, December 7; 1939, March 20; and 1939, November 3: Contract Ilr-762 with Moon Lake Water Users Association for construction of Moon Lake Dam and Reservoir. Estimated cost, \$1,600,000, payable in 40 equal annual installments which are due December 1 each year.

Summary of status of repayment contract:

Total value of contracted repayment	\$1,592,268
Total matured charges	1,034,974
Total matured charges repaid	1,034,974
Total matured charges unpaid	0

Summary statement of project cost and repayment:

Moon Lake Dam	\$1,293,820
Midview Dam and dike	175,303
Duchesne feeder canal	151,490
Canals, laterals, etc.	179,246
Subtotal, irrigation plant	1,799,859
Property transfers	1,001
Total cost	1,800,860
Reimbursable—irrigation	1,600,360
Nonreimbursable—Civilian Conservation Corps costs	200,500

Repayment of reimbursable costs:

Moon Lake Water Users Association	1,592,267
Contributions	8,093
	1,600,360

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$1,500,000							
1936	1,500,000							
1937	1,500,000							
1938	1,500,000							
1939	1,550,000							
1940	1,600,000							
1941	1,600,000							
1942	1,600,000							
1943	¹ 1,592,270							
1944	1,592,270	\$39,806		\$39,806	\$32,755		\$32,755	\$32,755
1945	1,592,268	39,807		39,807	39,807	\$7,051	46,858	79,613
1946	1,592,268	39,807		39,807	39,807		39,807	119,420
1947	1,592,268	39,807		39,807	39,807		39,807	159,227
1948	1,592,268	39,806		39,806	39,806		39,806	199,033
1949	1,592,268	39,807		39,807	39,807		39,807	238,840
1950	1,592,268	39,807		39,807	39,807		39,807	278,647
1951	1,592,268	39,807		39,807	39,807		39,807	318,454
1952	1,592,268	39,806		39,806	39,806		39,806	358,260
1953	1,592,268	39,807		39,807	39,807		39,807	398,067
1954	1,592,268	39,807		39,807	39,807		39,807	437,874
1955	1,592,268	39,807		39,807	39,807		39,807	477,681
1956	1,592,268	39,807		39,807	39,807		39,807	517,488
1957	1,592,268	39,806		39,806	39,806		39,806	557,294
1958	1,592,268	39,806		39,806	39,806		39,806	597,100
1959	1,592,268	39,807		39,807	39,807		39,807	636,907
1960	1,592,268	39,807		39,807	39,807		39,807	676,714
1961	1,592,268	39,806		39,806	39,806		39,806	716,520
1962	1,592,268	39,807		39,807	39,807		39,807	756,327
1963	1,592,268	39,807		39,807	39,807		39,807	796,134
1964	1,592,268	39,806		39,806	39,806		39,806	835,940
1965	1,592,268	39,807		39,807	39,807		39,807	875,747
1966	1,592,268	39,807		39,807	39,807		39,807	915,554
1967	1,592,268	39,807		39,807	39,807		39,807	955,361
1968	1,592,268	39,806		39,806	39,806		39,806	995,167
1969	1,592,268	39,807		39,807	39,807		39,807	1,034,974
Total		1,034,974		1,034,974	1,027,923	7,051	1,034,974	

¹ Decrease in obligation due to adjustment to actual cost.

NEWLANDS PROJECT

NEVADA-CALIFORNIA

The Newlands project (formerly the Truckee-Carson project), one of the first Reclamation projects constructed, conserves water from the Truckee and Carson Rivers to irrigate approximately 83,600 acres in Churchill County, Nevada. The project was authorized by the Secretary of the Interior on March 14, 1903.

The original project features include Lahontan Dam and Reservoir, outlet works of Lake Tahoe, Derby Diversion Dam on the Truckee River, Carson Diversion Dam on the Carson River, Lahontan Powerplant with an installed capacity of 1,920 kilowatts, Truckee Canal—33 miles long, 36 miles of main canals, 312 miles of laterals, and 341 miles of open drains. The Truckee-Carson Irrigation District has either acquired or constructed the following project features: Donner Lake storage space and outlet works, "S" Canal regulating reservoir, Coleman and Sagoupe Diversion Dams on Carson River, Lahontan-Swingle Bench Pumping Plant, extension of lateral and drainage systems, a 2,000-kilowatt diesel powerplant and an 800-kilowatt hydroelectric powerplant on the "V" Canal.

The total actual cost of constructing the Newlands project features was \$8,001,836. The entire amount, with the exception of the congressional chargeoff and other cost adjustments to be made, is repayable under the terms of the repayment contract with the Truckee-Carson Irrigation District. The act of May 5, 1926, authorized the cancellation of \$4,577,778 construction charges.

In 1969, 62,158 acres were irrigated, producing a total gross crop value of \$4,903,655 and an average value per acre of \$78.89. The irrigable area for service was 73,002 acres.

Operation and maintenance of the project was transferred to the Truckee-Carson Irrigation District on December 31, 1926.

Repayment contracts.—The Truckee-Carson Irrigation District made its first payment on construction

costs in 1907, as scheduled in public notice dated December 17, 1907. The December 18, 1926, contract with the District provided that the cost of the project features would be repaid in 40 years.

PUBLIC NOTICES AND CONTRACTS

- 1907, May 6: Public notice. Construction charge \$22 per acre, payable in 10 equal annual installments.
- 1907, November 1: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1914, August 19: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1916, February 11: Public notice. Construction charge \$60 per acre, payable in 20 graduated annual installments.
- 1917, October 30: Public notice. Supplemental construction for certain lands, rate \$10 per acre, payable in 2 equal annual installments.
- 1918, April 10: Public notice. Construction charge \$65 and \$115 for leveled land, payable in 20 graduated annual installments.
- 1920, October 19: Public notice. Construction charge \$80 per acre, payable in 20 graduated annual installments.
- 1921, January 22: Contract 11r-560 with Truckee-Carson Irrigation District for construction of a drainage system at estimated cost of \$700,000, payable in 40 equal semiannual installments.
- 1925, April 30: Contract with Truckee-Carson Irrigation District for additional drainage work at estimated cost of \$270,000, payable in 14 equal semiannual installments beginning January 1, 1946.
- 1926, December 18: Contract 11r-93 with Truckee-Carson Irrigation District. District assumes obligations under individual water-right applications. Time of repayment extended to 40 years. Additional construction work on Derby Dam and Truckee Canal. Assumption of deficit of \$500,000 to be paid from new water-right applications at \$54 per acre up to January 1, 1942, and balance on that date in 60 equal semiannual installments.
- 1935, July 1: Agreement between the United States, Truckee-Carson Irrigation District, Washoe County Water Conservation District, Sierra Pacific Power Co., and other users of the waters of Truckee River, to further conserve the waters of Lake Tahoe and Truckee River by combination of storage features which should be so op-

erated as to conform with present decrees and rates of river flow at designated gaging stations and at the same time permit additional benefits to be obtained.

1944, June 14: Contract with Truckee-Carson Irrigation District. Deficit to be paid only from water-right applications at \$54 per acre upon lands not under water-right applications on January 1, 1942, with a repayment period not to exceed 40 years.

1955, March 10: Contract with Truckee-Carson Irrigation District grants to the District, for a period of 50 years, a license to construct, operate and maintain the diesel powerplant and the "V" Canal Powerplant on lands described in the contract. Net power revenues received by the District from the two plants are to be credited first to the construction cost of said plants, including replacements, interest and carrying charges; second, to the payment of annual obligations of the District to the United States; and then as the District may determine.

1968, June 28: Lease agreement between Truckee-Carson Irrigation District and Sierra Pacific Power Co. and companion contract No. 14-06-200-3948A between United States and Sierra Pacific Power Co. The power company leases the project electric generation, transmission, and distribution system (exclusive of the T.C.I.D.—constructed, gas fired diesel-electric plant) for period of 30 years.

Status of repayment contracts:

Total value of contracted repayment	\$3,257,752
Total matured charges	3,004,552
Total matured charges repaid	3,004,552
Total matured charges unpaid	0

Allocation and repayment of costs:

Plant in service:	
Irrigation plant	\$7,458,330
Electric plant	341,751
Other physical property	34,960
Subtotal plant	7,835,041
Corollary costs	166,795
Total cost	8,001,836
Other charges:	
Operation and maintenance funded	27,935
Interest and penalties funded	14,886
Total	8,044,657

Allocation:

Irrigation	\$7,702,906
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Power	341,751
Total	8,044,657
Authorized chargeoff	4,577,778
Nonreimbursable expense	14,984
Total to be repaid	3,451,895
Repayment:	
Repayment realized:	
Repayment contracts matured	3,004,552
Contributions	1,453
Miscellaneous revenues	71,223
Total	3,077,228
Repayment anticipated:	
Repayment contracts unmatured	253,200
Future repayment contracts	121,467
Total repayment	3,451,895

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY

Fiscal year	Accruals	Collections
1908	\$9,860	\$6,023
1909	14,293	12,307
1910	19,464	21,469
1911	21,601	21,332
1912	22,484	22,688
1913	28,915	14,254
1914	27,867	42,736
1915	28,369	21,768
1916	41,835	35,125
1917	42,583	43,538
1918	42,156	48,078
1919	73,271	66,334
1920	85,892	89,462
1921	106,316	76,924
1922	122,467	88,744
1923	117,626	102,078
1924	108,691	92,067
1925	109,605	101,888
1926	87,136	122,035
1927	7,764	72,014
1928	2,846	15,665
1929	15,911	20,423
1930	15,611	15,611
1931	14,809	14,809
1932	7,210	7,210
Total	1,174,582	1,174,582

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1908		\$59,777		\$59,777	\$2,058		\$2,058	\$2,058
1909		22,147		22,147	25,130		25,130	27,188
1910		51,696		51,696	50,690		50,690	77,878
1911		70,773		70,773	64,995		64,995	142,873
1912		70,992	¹ \$22,157	48,835	8,812	\$35,833	44,645	187,518
1913		72,085	¹ 50,082	22,003	11,720	15,228	26,948	214,466
1914		71,802	¹ 42,624	29,178	14,330	8,727	23,057	237,523
1915	\$865,439	25,009	¹ 60,287	¹ 35,278	21,093	5,932	27,025	264,548
1916	943,095	26,130	625	26,755	21,503	5,072	26,575	291,123
1917	1,053,557			24,452			24,715	315,838
1918	1,188,920			18,144			17,426	333,264
1919	1,431,587	170,503		40,020	165,063		41,584	374,848
1920	1,884,250			44,635			44,150	418,998
1921	2,022,972			43,252			37,188	456,186
1922	² 2,692,614	40,687	¹ 506	40,181	25,369	6,546	31,915	488,101
1923	2,638,279	45,361	¹ 6,561	38,800	27,428	5,252	32,680	520,781
1924	2,588,450	50,104	¹ 3,282	46,822	24,183	6,987	31,170	551,951
1925	2,540,333	62,064	¹ 17,161	44,903	32,913	16	32,929	584,880
1926	2,406,780	78,193	717	78,910	39,226	10,576	49,802	634,682
1927	³ 3,350,072	83,212	¹ 35,880	47,332	62,770	39,548	102,318	737,000
1928	3,299,449	68,572	¹ 29,754	38,818	67,642	¹ 3,417	64,225	801,225
1929	3,299,558	83,221	¹ 601	82,620	82,279	152	82,431	883,656
1930	3,260,278	81,905	¹ 352	81,553	79,743	766	80,509	964,165
1931	3,260,278	90,299	¹ 4,789	85,510	87,523	¹ 2,626	84,897	1,049,062
1932	3,276,504	⁴ 79,107		79,107	74,693	2,776	77,469	1,126,531
1933	3,276,504	⁴ 19,460	¹ 4,553	14,907	17,987	¹ 3,015	14,972	1,141,503
1934	3,282,965	⁴ 36,272	¹ 27,815	8,457	35,434	¹ 23,467	11,967	1,153,470
1935	3,289,004	⁴ 31,341	¹ 629	30,712	30,049	211	30,260	1,183,730
1936	3,284,400	⁴ 22,331	¹ 840	21,491	20,714	501	21,215	1,204,945
1937	3,284,853	⁴ 29,900	¹ 1,321	28,579	27,575		27,575	1,232,520
1938	3,284,853	51,022		51,022	46,984	2,597	49,581	1,282,101
1939	3,283,676	86,022		86,022	80,832	4,012	84,844	1,366,945
1940	3,283,676	85,961		85,961	81,532	5,190	86,722	1,453,667
1941	3,283,676	87,635		87,635	84,640	4,428	89,068	1,542,735
1942	3,283,676	99,499		99,499	97,273	2,996	100,269	1,643,004
1943	3,283,676	99,996		99,996	98,750	2,226	100,976	1,743,980
1944	3,281,999	94,249		94,249	86,192	3,246	89,438	1,833,418
1945	3,281,999	88,983		88,983	88,658	6,057	94,715	1,928,133
1946	3,281,999	64,200		64,200	64,118	315	64,433	1,992,566
1947	3,281,999	106,286		106,286	106,091	92	106,183	2,098,749
1948	3,281,999	98,802		98,802	98,688	195	98,883	2,197,632
1949	3,281,999	98,410		98,410	98,275	114	98,389	2,296,021
1950	3,281,999	96,649		96,649	96,570	135	96,705	2,392,726
1951	3,281,999	86,087		86,087	86,081	79	86,160	2,478,886
1952	3,281,999	94,772		94,772	94,772	6	94,778	2,573,664
1953	3,281,999	34,675		34,675	34,675		34,675	2,608,339
1954	¹ 3,257,749	50,417	¹ 2,527	47,890	47,890		47,890	2,656,229
1955	3,257,749	43,967		43,967	43,967		43,967	2,700,196
1956	3,257,749	49,688		49,688	49,688		49,688	2,749,884
1957	3,257,749	41,980		41,980	41,980		41,980	2,791,864
1958	3,257,749	34,305		34,305	34,305		34,305	2,826,169
1959	3,257,749	25,657		25,657	25,657		25,657	2,851,826
1960	3,257,749	19,822		19,822	19,822		19,822	2,871,648
1961	3,257,749	21,440		21,440	21,440		21,440	2,893,088
1962	3,257,749	23,893		23,893	23,893		23,893	2,916,981
1963	3,257,749	30,816		30,816	30,816		30,816	2,947,797
1964	3,257,749	9,191		9,191	9,191		9,191	2,956,988
1965	3,257,749	10,147		10,147	10,147		10,147	2,967,135
1966	3,257,749	9,119		9,119	9,119		9,119	2,976,254
1967	3,257,749	9,120		9,120	9,120		9,120	2,985,374
1968	3,257,749	9,242		9,242	9,242		9,242	2,994,616
1969	3,257,752	9,936		9,936	9,936		9,936	3,004,552
Total		3,314,931	-310,379	3,004,552	2,861,266	143,286	3,004,552	

¹ Decrease. Decreases are due to cancellations of water-right applications and to deferment of charges under the relief acts, 1915, Reclamation Extension Act, Aug. 13, 1911.

² Increase of obligation covers drainage construction under 1921 contract.

³ Increase due to additional obligations assumed under 1926 contract.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred under these acts, \$401,232.

NEWTON PROJECT

UTAH

The construction of Newton project in Cache County, Utah, was approved by the President on October 17, 1940, under the terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. Completion was approved by the President on August 31, 1943.

The project was developed to furnish an adequate and dependable water supply to 2,200 acres of land. Project features include Newton Dam and Reservoir on Clarkston Creek, to replace an old dam built by the irrigators in 1871, and distribution canals.

The present irrigable area for service is 2,600 acres, with 2,434 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$210,448 and \$86.46, respectively.

The total project cost of \$712,592 is allocated to irrigation. The reimbursable portion of this cost, \$350,000, is repayable under the terms of the repayment contract with the Newton Water Users Association.

The operation and maintenance of the project works was transferred to the Newton Water Users Association on January 1, 1948, at the conclusion of the 2-year development period.

CONTRACTS

1941, August 29, and 1945, June 1: Contract I1r-1358 with Newton Water Users Association for construction of Newton Dam and Reservoir. Reimbursable cost, \$350,000, payable in 40 equal annual installments.

1962, January 8: Supplemental contract I1r-1358 with the Newton Water Users Association deferred \$5,425 of the December 31, 1961, payment of \$8,750 to the last 5 years (1983-1987) of the repayment period.

1963, December 31: Amendatory contract I1r-1358 with the Newton Water Users Association for payment of the unpaid balance of the construction obligation of \$224,175 in annual installments at the rate of \$1.75 per acre-foot, with a minimum annual charge for 3,500 acre-feet until all obligations to the United States have been paid.

Summary of status of repayment contract:

Total value of contracted repayment	\$350,000
Total matured charges	161,546
Total matured charges repaid	161,546
Total matured charges unpaid	0

Summary statement of project costs and repayment:

Costs

Newton Dam and Reservoir	\$622,249
Canals	90,343
Total plant cost	712,592

Reimbursable costs—irrigation 350,231

Nonreimbursable costs—irrigation (Water Conservation and Utilization Act, as amended October 14, 1940) 362,361

Repayment

Repayment of reimbursable costs:

Newton Water Users Association	350,000
Miscellaneous revenues	231
Total	350,231

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1949-----	\$350,000	\$8,750	-----	\$8,750	\$8,750	-----	\$8,750	\$8,750
1950-----	350,000	8,750	-----	8,750	8,750	-----	8,750	17,500
1951-----	350,000	8,750	-----	8,750	8,750	-----	8,750	26,250
1952-----	350,000	8,750	-----	8,750	8,750	-----	8,750	35,000
1953-----	350,000	8,750	-----	8,750	8,750	-----	8,750	43,750
1954-----	350,000	8,750	-----	8,750	8,750	-----	8,750	52,500
1955-----	350,000	8,750	-----	8,750	8,750	-----	8,750	61,250
1956-----	350,000	8,750	-----	8,750	8,750	-----	8,750	70,000
1957-----	350,000	8,750	-----	8,750	8,750	-----	8,750	78,750
1958-----	350,000	8,750	-----	8,750	8,750	-----	8,750	87,500
1959-----	350,000	8,750	-----	8,750	8,750	-----	8,750	96,250
1960-----	350,000	8,750	-----	8,750	8,750	-----	8,750	105,000
1961-----	350,000	8,750	-----	8,750	8,750	-----	8,750	113,750
1962-----	350,000	8,750	¹ —\$5,425	3,325	3,325	-----	3,325	117,075
1963-----	350,000	8,750	-----	8,750	8,750	-----	8,750	125,825
1964-----	350,000	8,750	-----	8,750	8,750	-----	8,750	134,575
1965-----	350,000	700	-----	700	700	-----	700	135,275
1966-----	350,000	6,493	-----	6,493	6,493	-----	6,493	141,768
1967-----	350,000	7,528	-----	7,528	7,528	-----	7,528	149,296
1968-----	350,000	6,125	-----	6,125	6,125	-----	6,125	155,421
1969-----	350,000	6,125	-----	6,125	6,125	-----	6,125	161,546
Total--	-----	166,971	—5,425	161,546	161,546	-----	161,546	-----

¹ Deferment per supplemental contract.

NORMAN PROJECT

OKLAHOMA

The construction, operation, and maintenance of the Norman project was authorized by act of June 27, 1960 (74 Stat. 225). The project is located in Cleveland and Oklahoma Counties near Norman, in central Oklahoma.

The constructed works include the Norman Dam and Reservoir on the Little River, two pumping plants, pipelines, and related facilities for furnishing 25,000 acre-feet of water annually for municipal, industrial, and domestic use to the cities of Norman, Midwest City, and Del City. The project also provides flood protection to lands and improvements, protection for fish and wildlife resources, and recreational facilities.

The total estimated project cost, including \$690,374 interest during construction, is \$18,376,780. Costs allocated to municipal and industrial water will be repaid by the water users. Costs allocated to flood protection, fish and wildlife resources, recreational facilities, and road relocation are nonreimbursable. Project costs are tentatively allocated as follows:

Statement of cost:

Norman Dam and Reservoir	\$12,352,956
Municipal and industrial water plant	5,490,359
Recreation facilities	494,979
Fish and wildlife facilities	17,893
Plant, property, and equipment	18,356,187
Property transfers	20,593
Total cost	18,376,780
Reimbursable: Municipal water supply	11,329,435
Nonreimbursable:	
Flood control	2,999,155
Fish and wildlife	2,603,211
Recreation	494,979
Road relocation	950,000
Total	18,376,780
Repayments and other credits:	
Repayments:	
Repayment contract	11,978,000

Contributions	6,285
Subtotal	11,984,285
Nonreimbursable	7,047,345
Total	19,031,630
Surplus	654,850

The Norman project is operated by the Central Oklahoma Master Conservancy District. All operation, maintenance, and replacement costs are paid by the water users. The District received a credit of \$227,000 on its repayment obligation to recognize the nonreimbursable joint-use costs allocated to flood control and fish and wildlife.

Status of repayment contract:

Total value of contracted repayment	\$11,978,000
Total matured charges	0

CONTRACT

1961, September 5: Contract 14-06-500-590 with the Central Oklahoma Master Conservancy District for payment of the reimbursable costs of construction, operation, and maintenance of the Norman project. Contract provides for a maximum repayment of \$11,562,000, plus not to exceed 5 percent for contingencies.

Payout schedule.—The repayment of construction costs, plus interest, is due in 50 successive annual installments. The first installment will come due on October 1 of the year next succeeding the year in which project works are completed. Thirty percent of the construction cost of the dam and reservoir is allocated to storage provided for future demands. Principal and interest on this storage will be deleted from the first 10 annual installments of the repayment obligation unless all or a portion of the storage so allocated is used in any year in the 10-year period. In such event all payments required to be made in subsequent years shall be adjusted to reflect both principal and interest on that portion of the reserve storage placed in use.

NORTH PLATTE PROJECT

WYOMING-NEBRASKA

The North Platte project is located in southeastern Wyoming and western Nebraska along the North Platte River. Originally called the Sweetwater project, it was authorized by the Secretary of the Interior on March 14, 1903, under the Reclamation Act of 1902 (32 Stat. 388), and later approved by the President on January 5, 1911. Pathfinder Dam and Reservoir were authorized by the Secretary May 3, 1904. The addition of the Fort Laramie unit, which included the Lingle Powerplant, was approved August 16, 1912, under the original authorization. Guernsey Dam and Powerplant were found feasible by the Secretary April 29, 1925, and approved by the President April 30, 1925. Construction began in 1905, and the first irrigation deliveries were made in the season of 1908. Construction of all segments was completed in the mid-twenties.

The main features include Pathfinder Dam and Reservoir, Guernsey Dam and Reservoir, Whalen Diversion Dam, the drainage diversion works, three regulatory reservoirs (Lake Alice, Lake Minatare, and Lake Winters Creek), 4,800-kilowatts at Guernsey Powerplant, 1,602 miles of canals and laterals, 363 of project drains, and associated transmission lines. Lingle Powerplant of 1,400-kilowatts was placed on a nonoperating status May 1, 1956.

The following features constitute the "reserved" works, which are operated and maintained by the Bureau: Pathfinder Dam and Reservoir, Guernsey Dam and Reservoir, the drainage diversion works, the Guernsey Powerplant, and the power transmission facilities. The water users, including the Warren Act contractors, advance their appropriate share of the cost of operation and maintenance of the "reserved" works. The remainder of the project works have been operated and maintained by the four project irrigation districts at no cost to the United States since January 1, 1927.

The project was constructed at a cost of \$19,730,963, entirely repayable by the water users. However, the act

of July 17, 1952 (Public Law 578), provided for acquisition of the water-users interests in the power revenues to the extent of \$6,711,887, thereby permitting a similar reduction in the remaining amount to be paid. As of June 30, 1969, an additional \$7,769,129 had been accomplished in rehabilitation and betterment work in a program totaling about \$7,882,581. In addition, under this program, the irrigation districts have agreed to perform deferred maintenance work to a generally similar extent with District funds.

The project is composed of four divisions. The Interstate division is composed of the project lands in Wyoming and Nebraska on the north side of the river served by the Interstate Canal. The "transferred" works serving this division are operated and maintained by the Pathfinder Irrigation District, which contains about 98 percent of the project land in the division. The Pathfinder Irrigation District also acts as fiscal agent for the United States in matters dealing with the unorganized project lands in Wyoming and Nebraska, and with two Warren Act contractors served by the Interstate Canal. The Fort Laramie division is composed of the project lands in Wyoming and Nebraska on the south side of the river served by the Fort Laramie Canal. The portion of this division in Wyoming is represented by the Goshen Irrigation District, which operates and maintains the "transferred" works within its boundaries. The portion in Nebraska is represented by the Gering-Fort Laramie Irrigation District, which operates and maintains the "transferred" works within its boundaries. The Northport division is located north of the river downstream from the Interstate division. It is composed of the project lands served by the Drainage Diversion Works and the Northport Canal and is represented by the Northport Irrigation District, which operates and maintains the "transferred" works within its boundaries. The Northport Irrigation District uses the Farmers' Canal as a carriage facility and shares in

its cost of operation and maintenance with the Farmers' Irrigation District. The Storage division is composed of the lands of the Warren Act contractors.

Whalen Diversion Dam, formerly included as a part of the "reserved" works, was transferred to the water users for operation and maintenance by contract No. 14-06-700-3226, dated June 20, 1962. The Gering and Fort Laramie, the Goshen, and the Pathfinder Irrigation Districts share the O&M costs for the transferred works proportionately.

The project uses water of the North Platte River to

irrigate adjacent lands in Goshen County, Wyoming, and in Scotts Bluff, Sioux, and Morrill Counties in Nebraska. Irrigation was started in the Interstate division in 1908, in the Fort Laramie division in 1918, and in the Northport division in 1922. Currently, there are 334,952 acres of irrigable land being served by project works, of which 226,237 acres are associated with the 4 irrigation districts representing the project lands and 108,715 acres are represented by 9 districts and canal companies under Warren Act contracts.

Gross crop value and average value per irrigated acre for 1969 were:

District	Acres irrigated	Gross crop value	Average per acre
Full:			
Gering-Ft. Laramie -----	51,762	\$8,836,879	\$170.72
Goshen -----	51,134	6,115,910	119.61
Northport -----	13,247	1,465,730	110.65
Pathfinder -----	* 95,948	12,022,434	125.30
Wyoming, nondistrict -----	1,710	195,786	114.49
Subtotal -----	213,801	28,636,739	128.15
Supplemental:			
Warren Acts -----	104,681	16,024,331	153.08
Total -----	318,482	44,661,070	140.23

* Includes Nebraska, nondistrict.

ALLOCATION AND REPAYMENT OF COSTS—NORTH PLATTE PROJECT

Item	Total	Irrigation				Electric
		Interstate division	Fort Laramie division	Northport division	Storage division	
<i>Cost</i>						
Completed divisions-----	\$19,436,077	\$7,201,757	\$8,525,937	\$997,574	\$912,289	\$1,798,520
Completed rehabilitation and betterment-----	148,651	106,287	15,359	2,314	24,691	
Construction work in progress-----	598,887		474,833			124,054
Subtotal, cost to June 30, 1969-----	20,183,615	7,308,044	9,016,129	999,888	936,980	1,922,574
Scheduled rehabilitation and betterment-----	113,452		113,452			
Replacements and additions-----	34,000					34,000
Total -----	20,331,067	7,308,044	9,129,581	999,888	936,980	1,956,574
Corollary costs:						
Deferred maintenance -----	7,114,106	73,883	6,897,164	11,616	131,443	
Property transfers-----	168,391	60,979	100,292	7,120		
Power rights acquired from water users -----	6,711,887					6,711,887
Power allocations to divisions-----		771,393	805,243	102,147		(1,678,783)
Total cost-----	34,325,451	8,214,299	16,932,280	1,120,771	1,068,423	6,989,678
Other costs funded:						
Funded charges-----	1,733,302	1,359,145	308,538	62,962	2,657	
Interest and penalties-----	387,884	365,281	3,168	6,809	12,626	
Total -----	36,446,637	9,938,725	17,243,986	1,190,542	1,083,706	6,989,678
<i>Repayment</i>						
Repayment realized:						
Repayment contracts matured-----	18,828,956	8,533,954	9,024,723	202,996	1,067,283	
Contributions -----	17,149	1,578	700			14,871
Other sources -----	642,786	303,734	262,016	60,579	16,457	
Excess of income over expense— miscellaneous -----	1,891					1,891
Excess of income over expense— power -----	2,169,640					2,169,640
Reserve for depreciation-----	99,829					99,829
Subtotal, repayment realized-----	21,760,251	8,839,266	9,287,439	263,575	1,083,740	2,286,231
Anticipated future repayment:						
Repayment contracts unmatured-----	8,407,003	473,827	7,933,176			
Excess of income over expense-----	7,165,079					7,165,079
Increase in reserve for depreciation-----	156,012					156,012
Future repayment contracts-----	924,233		691	923,542		
Subtotal, anticipated repayments-----	16,652,327	473,827	7,933,867	923,542		7,321,091
Total repayments -----	38,412,578	9,313,093	17,221,306	1,187,117	1,083,740	9,607,322
Other credits:						
Provisions for chargeoffs-----	49,856	23,751	22,680	3,425		
Repayment reductions authorized-----	615,068	615,068				
Total other credits-----	664,924	638,819	22,680	3,425		
Total repayment and other credits-----	39,077,502	9,951,912	17,243,986	1,190,542	1,083,740	9,607,322
Surplus -----	2,630,865	13,187			34	2,617,644

INTERSTATE DIVISION

The Interstate division was the first part of the project constructed and placed under irrigation. Water service was furnished from 1908 to 1927 under individual water-right application and public notice. The Pathfinder Irrigation District was organized in 1926. It assumed the obligations of the consenting lands in

Nebraska and entered into a contract accordingly to repay its portion of the project construction costs. The contracts with the individual, nonconsenting landowners in Nebraska and the unorganized, individual landowners in Wyoming remain in effect.

Of 102,738 acres of irrigable land in the division, 100,556 acres are in the Pathfinder Irrigation District

in Nebraska. This District, however, acts as agent for the Government in operation and maintenance and fiscal matters involving the remaining project lands, of which 1,789 acres are in unorganized tracts in Wyoming and 393 acres in nondistrict tracts in Nebraska. The Pathfinder District operates and maintains the project works below station No. 2 of the Interstate Canal including the Interstate Canal, laterals, drainage system, Lake Alice and Lake Minatare, and excluding the drainage diversion works.

Contracts with the nonconsenting landowners in Nebraska and with the nondistrict individual landowners in Wyoming total \$98,453 and \$151,596, respectively. Contracts for acquisition of these interests in the power revenues in accordance with Public Law 578, dated July 17, 1952, were executed with all landowners in 1957.

PUBLIC NOTICES AND CONTRACTS PATHFINDER IRRIGATION DISTRICT

- 1907, July 29: Public notice. Construction charge \$35 per acre, payable in 10 equal annual installments.
- 1909, March 3: Public notice. Construction charge \$45 per acre, payable in 10 equal annual installments.
- 1911, December 30: Public notice. Increase \$45 construction charge to \$55, with first payment due December 1, 1911, and graduated annual installments for 9 years.
- 1916, January 13: Public notice. Construction charge \$52.25 per acre, payable in 15 graduated annual installments.
- 1920, December 21: Public notice. Construction charge \$75 per acre, payable in 20 graduated annual installments.
- 1922, January 10: Public notice. Supplemental construction, rate \$16 per acre, payable in 3 annual installments after regular charges.
- 1926, July 31: Original repayment contract assumed obligation of individual water-right applications for the "consenting" lands therein. Delinquent charges were funded. Installments were based on 5 percent of the 10-year running average gross crop value. Total contract amount estimated at \$9,048,000.
- 1927, June 18: Public notice. Construction charge \$71 per acre, payable in accordance with terms of contract with Pathfinder Irrigation District.
- 1949, October 19: Rehabilitation and betterment contract IIR-1560 in the amount of \$32,300, payable in 10 equal annual installments upon contract execution. (Actual obligation of the District for its share of the rehabilitation and betterment of Pathfinder Dam and Reservoir, and to be repaid, is \$50,646.)
- 1952, September 22 (effective May 31, 1951): Contract IIR-14-06-W-5 amended the original repayment contract by

providing for acquisition of the power interests and fixed annual installments. The District's share of the total project costs designated as \$9,053,763 and the current balance, after allowing \$2,982,353 for the water user interests in power revenues, restated as \$1,200,539, payable in 44 graduated annual installments beginning June 1, 1951.

- 1955, December 7: Contract 14-06-700-935 for rehabilitation and betterment of the Cottonwood Siphon (Interstate Canal) in the amount of \$200,000, payable in five equal annual installments beginning June 30, 1957. Actual cost was \$127,769.
- 1958, July 7: Contract 14-06-700-1753, for repair and replacement of outlet works at Pathfinder Dam in the amount of \$46,422, payable in five successive equal annual installments beginning December 1, 1960. The District's share of the actual cost was \$37,957, of which \$34,278 was financed from the Special Fund for Replacement of Project Works.
- 1961, August 9: Contract 14-06-700-3107, for construction of trashracks necessary for the protection of the outlet works of Minatare Dam, in the amount of \$90,000, payable in four successive equal annual installments of \$22,500, beginning January 15, 1963. The actual completed cost was \$85,571.

OTHER CONTRACTORS

- 1907, September 3 and 1914, December 24: Contracts with North Platte Canal and Colonization Co. Purchased 54,000 acre-feet of water from the Interstate Canal for \$10,000 in lieu of construction charges.
- 1917, June 16: Special contract with Farmers' Irrigation District for construction of Lower Nine Mile drain in the amount of \$61,851, payable in 10 equal annual installments.
- 1918, May 31: Special contract with Farmers' Irrigation District for 25 percent of the construction cost of Wild Horse drain in the amount of \$24,927, payable in 10 equal annual installments.
- 1918, May 31: Special contract IIR-478, with Alliance Irrigation District, covering drainage construction in the amount of \$2,657, payable in 10 graduated annual installments.
- 1918, May 31: Special contract IIR-478, with city of Bayard, covering drainage construction in the amount of \$24,380, payable in 10 graduated annual installments.

Summary of status of the Interstate division repayment contracts:

Total value of contracted repayment	\$9,007,781
Total matured charges	8,533,955
Total matured charges repaid	8,533,542
Total matured charges unpaid	413

CONSTRUCTION REPAYMENT HISTORY—INTERSTATE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1909		\$72,062		\$72,062	\$5,008		\$5,008	\$5,008
1910		107,355		107,355	65,929		65,929	70,937
1911		330,656		330,656	3,723	\$24,099	27,822	98,759
1912		76,803	¹ \$462,283	¹ 385,480	44,928	¹ 69,575	¹ 24,647	74,112
1913		133,381	¹ 34,575	98,806	47,756	¹ 3,263	44,493	118,605
1914		291,192	¹ 66,249	224,943	20,912	¹ 5,454	15,458	134,063
1915		168,447	¹ 211,373	¹ 42,926	47,741	4,738	52,479	186,542
1916		95,819	¹ 180,735	¹ 84,916	77,982	30,100	108,082	294,624
1917	\$5,288,875			101,512			103,293	397,917
1918	5,803,792			104,573			98,069	495,986
1919	5,863,631			178,813			153,849	649,835
1920	5,902,712			180,619			184,264	834,099
1921	6,007,162	2,461,581		274,914	1,072,650		191,489	1,025,588
1922	² 7,794,439			297,091			105,956	1,131,544
1923	7,827,930			313,250			98,691	1,230,235
1924	7,836,666			327,492			27,743	1,257,978
1925	7,911,999			256,559			18,237	1,276,215
1926	8,047,363			426,758			91,059	1,367,274
1927	8,047,363	164,847	¹ 1,348,634	¹ 1,183,787	72,638	815	73,453	1,440,727
1928	³ 9,664,123	161,039	¹ 29,505	131,534	70,393	61,233	131,626	1,572,353
1929	9,582,769	149,180	¹ 89,112	60,068	54,965	49,225	104,190	1,676,543
1930	9,519,759	140,655	¹ 7,234	133,421	58,055	80,618	138,673	1,815,216
1931	9,526,358	136,727	¹ 5,266	131,461	135,526	99,476	235,002	2,050,218
1932	9,534,444	⁴ 83,543	¹ 227	83,316	82,628	406	83,034	2,133,252
1933	9,545,154	⁴ 122,468	37,994	160,462	122,057	42,281	164,338	2,297,590
1934	9,468,662	⁴ 99,392		99,392	97,091	2,705	99,796	2,397,386
1935	9,471,946	⁴ 79,406		79,406	78,809	878	79,687	2,477,073
1936	9,470,669	⁴ 59,176		59,176	58,209	480	58,689	2,535,762
1937	9,480,170	112,609		112,609	90,188	1,171	91,359	2,627,121
1938	9,480,618	118,670		118,670	96,336	22,211	118,547	2,745,668
1939	9,478,793	116,314		116,314	114,988	22,533	137,521	2,883,189
1940	9,478,793	113,079		113,079	111,925	1,328	113,253	2,996,442
1941	9,478,793	112,432		112,432	107,807	1,154	108,961	3,105,403
1942	9,478,793	107,441		107,441	100,996	4,624	105,620	3,211,023
1943	9,481,624	112,621		112,621	112,023	5,786	117,809	3,328,832
1944	9,481,624	119,479		119,479	115,231	864	116,095	3,444,927
1945	9,482,099	135,973		135,973	121,018	4,248	125,266	3,570,193
1946	9,490,793	150,179		150,179	104,660	16,163	120,823	3,691,016
1947	9,648,584	166,496		166,496	111,544	44,351	155,895	3,846,911
1948	9,648,584	1,024		1,024	1,004	54,912	55,916	3,902,827
1949	9,648,584	185,074		185,074	185,052	4	185,056	4,087,883
1950	9,476,326	412,754		412,754	310,409	22	310,431	4,398,314
1951	9,476,326	223,731		223,731	75,922	102,359	178,281	4,576,595
1952	9,476,326	1,023		1,023	982	76,739	77,721	4,654,316
1953	8,718,928	49,896	2,867,146	2,917,042	49,937	⁵ 2,938,218	2,988,155	7,642,471
1954	8,718,928	3,196		3,196	2,651		2,651	7,645,122
1955	8,733,222	181,298	-102,638	78,660	180,914	-102,638	78,276	7,723,398
1956	8,731,865	44,398	-5,561	38,837	44,578	-5,561	39,017	7,762,415
1957	8,731,865	43,627		43,627	43,015	255	43,270	7,805,685
1958	8,731,842	42,674	-58	42,616	42,465	704	43,169	7,848,854
1959	8,731,842	41,274		41,274	41,065	356	41,421	7,890,275
1960	8,731,842	40,918		40,918	40,089	209	40,298	7,930,573
1961	8,724,236	39,874	-1,791	38,083	39,665	-889	38,776	7,969,349
1962	8,724,236	38,974		38,974	38,620	333	38,953	8,008,302
1963	8,724,236	38,174		38,174	38,089	230	38,319	8,046,621
1964	8,724,236	36,867		36,867	33,166	4,052	37,218	8,083,839
1965	8,724,236	35,878		35,878	34,760	339	35,099	8,118,938
1966	8,724,236	34,829		34,829	35,067	529	35,596	8,154,534
1967	8,724,236	34,009		34,009	34,043	189	34,232	8,188,766
1968	8,724,236	33,470		33,470	32,477	392	32,869	8,221,635
1969	8,724,236	32,370		32,370	31,957	248	32,205	8,253,840
Total		7,894,354	359,899	8,254,253	4,739,643	3,514,197	8,253,840	
Collected				8,253,840				
Uncollected				413				

¹ Decrease. Decreases are due to cancellations of water-right applications, funding of delinquent charges, and deferments under relief acts. 1912—Adjustment under 1911 public notice; 1915—Reclamation Extension Act, Aug. 13, 1911, 1926 adjustment under 1926 contract.

² Decrease in obligation due to opening of additional lands to homestead entry.

³ Increase in obligation due to funding of delinquent charges under 1926 contract.

⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred for years 1931-36, \$169,585.

⁵ Adjustments of accruals and collections due to acquisition of the power system by the United States.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY—INTERSTATE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950	\$32,300	\$6,460		\$6,460	\$6,460		\$6,460	\$6,460
1951	32,300	3,230		3,230	3,230		3,230	9,690
1952	32,300	3,230		3,230	3,230		3,230	12,920
1953	¹ 51,400	3,230		3,230	3,230		3,230	16,150
1954	51,400	3,230		3,230	3,230		3,230	19,380
1955	51,400	3,230		3,230	3,230		3,230	22,610
1956	² 251,400	3,230		3,230	3,230		3,230	25,840
1957	³ 179,169	28,784		28,784	28,784		28,784	54,624
1958	179,169	28,784		28,784	28,784		28,784	83,408
1959	⁴ 224,836	28,784		28,784	28,784		28,784	112,192
1960	224,836	28,783		28,783	28,783		28,783	140,975
1961	224,836	31,213		31,213	31,213		31,213	172,188
1962	⁵ 280,559	5,659		5,659	5,659		5,659	177,847
1963	⁶ 267,665	24,623	⁷ - \$1,179	23,444	24,623	- \$1,179	23,444	201,291
1964	267,665	23,589		23,589	23,589		23,589	224,880
1965	267,665	21,393		21,393	21,393		21,393	246,273
1966	267,665	21,392		21,392	21,392		21,392	267,665
Total		268,844	- 1,179	267,665	268,844	- 1,179	267,665	

¹ Increase in contract value by amendatory contract.² Contract in the amount of \$200,000 executed to repay costs incurred in construction of Cottonwood Siphon on Interstate Canal.³ Actual construction costs were \$127,769, which resulted in a contract reduction of \$72,231.⁴ Contract executed for rehabilitation of outlet works at Pathfinder Dam, and reduction of contract value to reflect actual costs on initial obligation.⁵ Contract in amount of \$90,000 executed for construction of trashrack structure at Minatare Dam.⁶ Adjustment of contract value for rehabilitation of outlet works at Pathfinder to reflect actual costs. Actual costs for Minatare Dam trashrack structure were \$85,571, or reduction of \$4,429.⁷ Overpayment of obligation for rehabilitation of outlet works. Credit transferred to original construction contract.OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—INTERSTATE DIVISION

Calendar year	Accruals	Collections
1909	\$15,182	\$10,422
1910	¹ 1,674	3,690
1911	85,153	13,255
1912	45,837	56,290
1913	116,169	81,112
1914	78,174	95,929
1915	¹ 59,616	16,501
1916	73,383	56,667
1917	112,210	101,054
1918	130,981	114,496
1919	192,455	172,733
1920	242,593	239,179
1921	300,845	152,269
1922	201,698	87,663
1923	185,912	94,883
1924	156,276	42,547
1925	119,716	54,983
1926	198,655	30,397
1927	¹ 703,531	8,356
1928	858	13,844
1929	¹ 44,964	¹ 7,122
1930	¹ 69	0
1931	¹ 1,715	4,401
1932	0	0
1933	¹ 961	18
Total	1,443,567	1,443,567

NOTE.—Does not include \$100,483 funds advanced by Farmers' Irrigation District for operation and maintenance of the District's irrigation system in 1925 and 1926.

¹ Decrease.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—PATHFINDER IRRIGATION DISTRICT

Calendar year	Accruals	Collections
1927	\$18,822	\$18,822
1928	15,552	15,383
1929	10,710	10,879
1930	8,987	8,987
1931	8,800	8,800
1932	5,941	5,941
1933	4,860	4,860
1934	8,870	8,870
1935	7,050	7,050
1936	7,200	7,200
1937	7,000	7,000
1938	7,500	7,500
1939	10,500	10,500
1940	8,500	8,500
1941	6,600	6,600
1942	7,900	7,900
1943	6,900	6,900
1944	9,500	9,500
1945	7,840	774
1946	14,870	21,936
1947	19,000	19,000
1948	20,000	20,000
1949	12,700	12,700
1950	22,920	22,920
1951	43,170	43,170
1952	29,120	29,120
1953	30,300	30,300
1954	33,840	33,840
1955	33,250	33,250
1956	35,390	35,390
1957	29,270	29,270
1958	34,700	34,700
1959	29,880	29,880
1960	31,410	31,410
1961	34,770	34,770
1962	30,750	30,750
1963	20,930	20,930
1964	16,780	16,780
1965	18,330	18,330
1966	17,380	17,380
1967	25,690	25,690
1968	25,711	25,711
1969	27,752	27,752
Total	806,945	806,945

FORT LARAMIE DIVISION

The Goshen Irrigation District contains 52,484 acres of irrigable land in Wyoming south of the North Platte River. The District operates and maintains the project works below station 12 of the Fort Laramie Canal to the State line, including the canal, laterals, and drainage system but excluding the Lingle Powerplant. The cost of operation and maintenance of the canal and certain laterals serving both districts is shared by the Gering-Fort Laramie District.

CONTRACTS

1926, November 24: Original contract in the estimated amount of \$5,092,991, with payments based on 5 percent of the 10-year running average gross crop value.

- 1927, July 7: Amendment providing for operation and maintenance of certain project works by the Goshen District.
- 1949, July 8: Rehabilitation and betterment contract Ilr-1558 for \$3,458,700, to be repaid in 40 annual installments of \$87,000 beginning the year following the last construction installment.
- 1952, September 22 (effective November 30, 1951): Contract Ilr-14-06-W-4 amended both the original repayment contract and the rehabilitation and betterment contract. The District's share of the total project construction cost designated as \$4,585,812 and the current balance, after allowing \$1,556,699 for the water users interest in power revenues, restated as \$1,421,204, payable in 45 graduated annual installments beginning December 1, 1951. The rehabilitation and betterment program was reduced to \$2,000,000, payable in 71 graduated annual installments beginning December 1, 1984.
- 1958, June 26: Contract 14-06-700-1747, for rehabilitation of the District's lateral system, in the amount of \$2,000,000, payable in 40 equal successive annual installments of \$50,000 beginning December 1, 1960.
- 1958, July 7: Contract 14-06-700-1755, for repair and replacement of outlet works at Pathfinder Dam in the amount of \$23,678, payable in five successive equal annual installments beginning December 1, 1960. The District's share of the actual cost was \$19,361, of which \$17,368 was financed from the Special Fund for Replacement of Project Works.

Summary of status of the Goshen Irrigation District's repayment contracts:

Total value of contracted repayment	\$8,581,723
Total matured charges	4,260,900
Total matured charges repaid	4,260,900
Total matured charges unpaid	0

Gering-Fort Laramie Irrigation District contains 54,845 acres of irrigable land in Nebraska south of the North Platte River. The District operates and maintains all project works within its boundaries, beginning with the Fort Laramie Canal at the State line.

CONTRACTS

- 1920, May 25: Original contract in the amount of \$5,250,000, payable in 20 equal, annual installments.
- 1926, November 2: Amendment converting the repayment installments to 5 percent of the 10-year running average gross crop value.
- 1927, June 7: Amendment providing for operation and maintenance of certain project works by the Gering-Fort Laramie District.
- 1949, July 5: Rehabilitation and betterment contract Ilr-1559 for \$4,446,600, to be repaid in 40 annual installments of \$112,000 each.
- 1952, September 22 (effective June 30, 1951): Contract Ilr-14-06-W-6 amended both the original repayment contract and the rehabilitation and betterment contract. The District's share of the total project construction cost designated as \$4,818,334 and the current balance, after

allowing \$1,626,734 for the water users interest in power revenues, restated as \$1,097,082, payable in 43 graduated annual installments beginning July 1, 1951. The rehabilitation and betterment program was reduced to \$1,500,000 payable in 63 graduated annual installments beginning July 1, 1974.

1958, July 7: Contract 14-06-700-1754, for repair and replacement of outlet works at Pathfinder Dam in the amount of \$24,744, payable in five successive equal annual installments beginning December 1, 1960. The District's share of the actual cost was \$20,232, of which \$18,255 was financed from the Special Fund for Replacement of Project Works.

1962, July 3: Contract 14-06-700-3137, for rehabilitation of the District's lateral system, in the amount of \$2,000,000, payable in successive annual installments of \$55,000 each, beginning July 1, 1965.

Summary of status of the Gering-Fort Laramie Irrigation District's repayment contracts:

Total value of contracted repayment	\$8,315,484
Total matured charges	4,703,130

Total matured charges repaid	4,703,130
Total matured charges unpaid	0

OTHER CONTRACTORS

The Union Pacific Railroad Co. signed contracts in 1921, 1924, and 1927 for repayment of construction charges on rights-of-way in the amount of \$60,280. The Holly Sugar Corp. signed contract 11r-577 April 29, 1929, for repayment of construction charges on a beet-dump site in the amount of \$312. The Great Western Sugar Co. signed contract 11r-697 on August 1, 1932, for repayment of construction charges on a beet-dump site in the amount of \$100. As of June 30, 1963, these three contractors had paid their obligations in full.

Summary of status of these other contractors' repayment contracts:

Total value of contracted repayment	\$60,692
Total matured charges	60,692
Total matured charges repaid	60,692
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—FORT LARAMIE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921	\$30,561	\$30,561		\$30,561	\$30,561		\$30,561	\$30,561
1922	34,124	3,563		3,563	3,563		3,563	34,124
1923	34,124							34,124
1924	39,271	5,147		5,147	5,147		5,147	39,271
1925	5,288,973	¹ 298		¹ 298	¹ 298		¹ 298	38,973
1926	5,288,973			0			0	38,973
1927 ²	5,288,973	184,189		184,189	184,189		184,189	223,162
1928 ³	10,541,707	3,797		3,797	3,797		3,797	226,959
1929	10,541,707	193		193	193		193	227,152
1930 ²	10,542,019	30,345	² -\$126,696	² -96,351	30,345	² -\$126,696	² -96,351	130,801
1931	10,542,019	⁴ 65,046		65,046	65,046		65,046	195,847
1932	10,542,019	⁴ 185,030		185,030	185,030		185,030	380,877
1933	10,542,432	⁴ 171,756		171,756	171,756		171,756	552,633
1934	10,544,278	⁴ 75,682		75,682	75,682		75,682	628,315
1935	10,544,278	⁴ 46,806		46,806	46,806		46,806	675,121
1936	10,542,413	⁴ 60,262		60,262	60,262		60,262	735,383
1937	10,542,413	42,064		42,064	42,064		42,064	777,447
1938	10,542,413	108,535		108,535	108,535		108,535	885,982
1939	10,542,413	160,802		160,802	160,802		160,802	1,046,784
1940	10,542,413	164,625		164,625	164,625		164,625	1,211,409
1941	10,542,413	163,908		163,908	163,908		163,908	1,375,317
1942	10,542,413	162,548		162,548	162,548		162,548	1,537,865
1943	10,542,413	216,351		216,351	216,351		216,351	1,754,216
1944	10,542,413	167,050		167,050	167,050		167,050	1,921,266
1945	10,542,413	177,546		177,546	177,546		177,546	2,098,812
1946	10,542,413	189,821		189,821	189,821		189,821	2,288,633
1947	10,542,413	206,532		206,532	206,532		206,532	2,495,165
1948	10,542,413	222,406		222,406	222,406		222,406	2,717,571
1949	10,542,413	241,087		241,087	241,087		241,087	2,958,658
1950	10,542,413	265,204		265,204	265,204		265,204	3,223,862
1951	10,542,413	276,869		276,869	276,869		276,869	3,500,731
1952	10,542,413	291,165		291,165	277,472		277,472	3,778,203
1953	9,464,838	72,900	⁵ 3,636,098	3,708,998	72,900	⁵ 3,649,791	3,722,691	7,500,894
1954	9,464,838							7,500,894
1955	9,464,838	145,800	⁶ 371,442	-225,642	145,800	⁶ 371,442	-225,642	7,275,252
1956	9,464,838	72,900		72,900	72,900		72,900	7,348,152
1957	9,464,838	72,900		72,900	72,900		72,900	7,421,052
1958	9,464,838	72,900		72,900	72,900		72,900	7,493,952
1959	9,464,838	72,900		72,900	72,900		72,900	7,566,852
1960	9,464,838	72,900		72,900	72,900		72,900	7,639,752
1961	9,464,838	72,900		72,900	72,900		72,900	7,712,652
1962	9,464,838	72,900		72,900	72,900		72,900	7,785,552
1963	9,464,838	72,900		72,900	72,900		72,900	7,858,452
1964	9,464,838	72,900		72,900	72,900		72,900	7,931,352
1965	9,464,838	72,900		72,900	72,900		72,900	8,004,252
1966	9,464,838	72,900		72,900	72,900		72,900	8,077,152
1967	9,464,838	72,900		72,900	72,900		72,900	8,150,052
1968	9,464,838	72,900		72,900	72,900		72,900	8,222,952
1969	9,464,838	72,900		72,900	72,900		72,900	8,295,852
Total		5,157,892	3,137,960	8,295,852	5,144,199	3,151,653	8,295,852	

¹ Decrease. Decreases cover adjustment of allowance.² Unification credits. Credit for private irrigation works taken over and made part of the project.³ Goshute Irrigation District became part of project.⁴ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for 1931.

\$5,400; 1932, \$50,702; 1933, \$72,013; 1934, \$99,199; 1935, \$96,202; 1936, \$3,189.

⁵ Adjustment of accruals and collections to reflect acquisition credit of the power system.⁶ Decrease. Additional adjustments necessary as a result of acquisition of the power system by the United States.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY—FORT LARAMIE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1961-----	\$5,548,422	\$52,540	-----	\$52,540	\$52,540	-----	\$52,540	\$52,540
1962-----	5,512,700	52,540	-----	52,540	52,540	-----	52,540	105,080
1963-----	7,503,870	50,000	¹ - \$1,210	48,790	50,000	¹ - \$1,210	48,790	153,870
1964-----	7,503,870	50,000	-----	50,000	50,000	-----	50,000	203,870
1965-----	7,503,870	105,000	-----	105,000	105,000	-----	105,000	308,870
1966-----	7,493,061	105,000	-----	105,000	105,000	-----	105,000	413,870
1967-----	7,493,061	105,000	-----	105,000	105,000	-----	105,000	518,870
1968-----	7,493,061	105,000	-----	105,000	105,000	-----	105,000	623,870
1969-----	7,493,061	105,000	-----	105,000	105,000	-----	105,000	728,870
Total-----	-----	730,080	- 1,210	728,870	730,080	- 1,210	728,870	-----

¹ Overpayment of obligation for rehabilitation of outlet works at Pathfinder Dam. Credit transferred to original construction contract.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—FORT LARAMIE DIVISION

Calendar year	Accruals	Collections
1927-----	\$25,000	\$25,000
1928-----	1,753	1,753
1929-----	8,982	8,982
1930-----	8,237	8,237
1931-----	7,488	7,488
1932-----	6,701	6,701
1933-----	5,360	5,360
1934-----	8,856	8,856
1935-----	5,483	5,483
1936-----	6,555	6,555
1937-----	8,487	8,487
1938-----	7,538	7,538
1939-----	9,058	9,058
1940-----	7,955	7,955
1941-----	7,635	7,635
1942-----	8,821	8,821
1943-----	7,131	7,131
1944-----	9,867	9,867
1945-----	8,283	8,283
1946-----	15,564	15,564
1947-----	18,358	18,358
1948-----	16,516	16,516
1949-----	15,539	15,539
1950-----	21,224	21,224
1951-----	45,626	45,626
1952-----	39,313	39,313
1953-----	25,992	25,992
1954-----	33,825	33,825
1955-----	32,255	32,255
1956-----	33,170	33,170
1957-----	27,491	27,491
1958-----	33,874	33,874
1959-----	27,788	27,788
1960-----	31,229	31,229
1961-----	32,211	32,211
1962-----	28,398	28,398
1963-----	31,151	31,151
1964-----	12,412	12,412
1965-----	16,578	16,578
1966-----	19,688	19,688
1967-----	26,806	26,806
1968-----	26,831	26,831
1969-----	29,687	29,687
Total-----	800,716	800,716

NORTHPORT DIVISION

The Northport Irrigation District comprises all of the irrigable land in the division. This was the last of the divisions to be constructed. The District's water supply is transported via the Farmers' Canal and much of it is obtained via the Drainage Diversion Works. The District currently contains 16,170 acres of irrigable land. This District has been in financial difficulties since its organization, causing postponement of certain payments and several amendments of the repayment contract. Power settlement contract was approved by act of August 13, 1957 (71 Stat. 342), and is dated March 6, 1958.

CONTRACTS

- 1919, February 24: Original repayment contract in the amount of \$1,050,000, payable in 20 graduated annual installments.
- 1926, November 24: Amendatory contract IIr-80 increasing the obligation by the penalties, operation and maintenance deficits, and transferred equipment and supplies; also converting installments to 5 percent of the 10-year average gross crop value.
- 1934, April 1: Amendatory contract providing for 40 graduated installments and crediting power revenues separately, of which \$6,000 annually to Farmers' Irrigation District for Northport's share of water transportation costs.
- 1948, August 19: Amendatory contract—reduced installments to \$3,500 on total obligation of \$952,046 beginning June 1, 1949. All or part of the \$3,500 may be applied on Farmers' Irrigation District carriage costs if District's share of annual power revenues are insufficient.
- 1949, August 2: Rehabilitation and betterment contract IIr-1562 in the amount of \$7,950, payable in 10 installments beginning on contract execution and remainder on April 1 each year.
- 1958, March 6: Contract with the Northport Irrigation District for United States acquisition of water-user interest in power revenues. The \$479,602 amount of settlement is to

REPAYMENT OF RECLAMATION PROJECTS

be retained by the United States and is to be applied in amounts of not more than \$8,000 per year, commencing with the year 1958, toward payment of the annual cost of carrying the Northport District's water through the Farmers' Irrigation District canal. No change made in provisions cited under August 19, 1948, amendatory contract.

1958, July 23: Contract 14-06-700-1764, for repair and replacement of outlet works at Pathfinder Dam in the

amount of \$7,295, payable in five successive equal annual installments beginning December 1, 1960.

Status of the Northport Irrigation District's repayment contracts, including rehabilitation and betterment:

Total value of contracted repayment	\$1,126,393
Total matured charges	202,996
Total matured charges repaid	202,996
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—NORTHPORT IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1925-----	\$1,050,000	\$21,000		\$21,000				
1926-----	1,050,000	21,000		21,000				
1927-----	1,050,000		¹ \$42,000	¹ 42,000				
1928-----	1,112,695	4,228		4,228	\$4,228		\$4,228	\$4,228
1929-----	1,112,695	8,396		8,396	8,396		8,396	12,624
1930-----	1,112,695	² 12,997		12,997	12,985		12,985	25,609
1931-----	1,112,405	² 12,997		12,997	12,997	\$12	13,009	38,618
1932-----	1,112,441	² 16,665		16,665	16,665		16,665	55,283
1933-----	1,112,410	² 16,203	¹ 7,150	9,053	9,053		9,053	64,336
1934-----	1,112,464	10,985		10,985	10,985		10,985	75,321
1935-----	1,112,464	14,071	¹ 9,705	4,366	4,368		4,368	79,689
1936-----	1,112,464	1,714		1,714	1,714		1,714	81,403
1937-----	1,112,464			0			0	81,403 ³
1938-----	1,112,464	13,380		13,380	13,380		13,380	94,783
1939-----	1,112,464	³ 9,223		9,223	9,223		9,223	104,006
1940-----	1,112,464	(³)		0			0	104,006
1941-----	1,112,464	³ 15,095		15,095	7,595		7,595	111,601
1942-----	1,112,464	³ 16,494		16,494	6,492		6,492	118,093
1943-----	1,112,464	³ 19,402	¹ 16,160	3,242	8,121		8,121	126,214
1944-----	1,112,464	³ 21,765	¹ 12,500	9,265	6,765		6,765	132,979
1945-----	1,112,464	³ 30,223		30,223	5,223		5,223	138,202
1946-----	1,112,464	32,964	¹ 15,000	17,964	7,964		7,964	146,166
1947-----	1,112,464	33,003	¹ 25,000	8,003	8,003		8,003	154,169
1948-----	1,112,464	9,675	¹ 25,000	¹ 15,325	7,075		7,075	161,244
1949-----	1,112,464	5,685		5,685	8,285		8,285	169,529
1950-----	1,112,464	29	⁴ 25,121	-25,092	29		29	169,558
1951-----	1,112,464	5,723		5,723	5,723		5,723	175,281
1952 ⁵ -----	971,058	0		0	0		0	175,281
1953 ⁶ -----	1,112,464							175,281
1954 ⁶ -----	1,112,464							175,281
1955 ⁶ -----	1,112,464	3,500		3,500	3,500		3,500	178,781
1956 ⁶ -----	1,112,464	⁶ 10,286		10,286	10,286		10,286	189,067
1957 ⁶ -----	1,112,464							189,067
1958 thru 1969 ⁵ -----	1,112,464	0	0	0	0	0	0	189,067
Total-----		366,703	-177,636	189,067	189,055	12	189,067	

¹ Decrease. Deferments under relief acts. 1927—Adjustments under 1926 contract.

² Moratorium period. Acts of Apr. 1 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for years 1930, \$928; 1931, \$2,798; 1932, \$1,676; 1933, \$1,773.

³ Relief under Act of Aug. 4, 1939. Construction charges deferred for calendar years 1939, \$5,000; 1940, \$7,500; 1941, \$8,660; 1942, \$12,500; 1943, \$15,000; 1944, \$25,000; 1945, \$25,000.

⁴ Decrease. Amended contract Aug. 19, 1948, changing repayment terms.

⁵ Pursuant to the act of May 25, 1948, authorizing the amendatory repayment contract of August 19, 1948, annual installment of \$3,500 payable by the Northport Irrigation District has been applied toward annual water carriage charges payable to Farmers' Irrigation District since 1952 with the exception of the year 1955. It does not appear that any of annual installments of \$3,500 will ever be available to reduce outstanding obligation of \$923,398.

⁶ Audit adjustment for application of net power revenues calendar years 1951, 1952, and 1953.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY—NORTHPORT IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950-----	\$7,950	\$1,590	-----	\$1,590	\$1,590	-----	\$1,590	\$1,590
1951-----	7,950	795	-----	795	795	-----	795	2,385
1952-----	7,950	795	-----	795	795	-----	795	3,180
1953-----	7,950	795	-----	795	795	-----	795	3,975
1954-----	7,950	795	-----	795	795	-----	795	4,770
1955-----	7,950	795	-----	795	795	-----	795	5,565
1956-----	7,950	795	-----	795	795	-----	795	6,360
1957-----	7,950	795	-----	795	795	-----	795	7,155
1958-----	7,950	795	-----	795	795	-----	795	7,950
1959-----	¹ 15,260	14	-----	14	14	-----	14	7,964
1960-----	15,260	-----	-----	-----	-----	-----	-----	7,964
1961-----	15,260	1,460	-----	1,460	1,460	-----	1,460	9,424
1962-----	15,260	1,459	-----	1,459	1,459	-----	1,459	10,883
1963-----	² 13,929	1,015	-----	1,015	1,015	-----	1,015	11,898
1964-----	13,929	1,015	-----	1,015	1,015	-----	1,015	12,913
1965-----	13,929	1,016	-----	1,016	1,016	-----	1,016	13,929
Total -----	-----	13,929	-----	13,929	13,929	-----	13,929	-----

¹ Repayment contract for rehabilitation of outlet works at Pathfinder Dam.² Adjustment of contract value to actual costs.OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—NORTHPORT DIVISION

Calendar year	Accruals	Collections
1924-----	\$22,748	-----
1925-----	22,922	\$22,748
1926-----	22,985	23,381
1927-----	¹ 22,236	290
Total -----	46,419	46,419

NOTE.—Operation and maintenance of Northport division assumed by Northport Irrigation District in 1927.

¹ Decrease.

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—NORTHPORT IRRIGATION DISTRICT

Calendar year	Accruals	Collections
1927	\$2,340	\$2,340
1928	1,713	1,713
1929	1,152	1,152
1930	980	0
1931	750	1,730
1932	650	650
1933	700	700
1934	983	0
1935	800	983
1936	850	800
1937	650	850
1938	750	650
1939	930	750
1940	900	930
1941	700	900
1942	800	700
1943	800	800
1944	970	800
1945	520	1,490
1946	1,180	1,180
1947	1,640	1,640
1948	1,835	1,835
1949	1,300	1,300
1950	2,060	2,060
1951	2,490	2,490
1952	3,370	3,370
1953	2,000	2,000
1954	5,733	5,733
1955	4,130	4,130
1956	4,330	4,330
1957	4,230	4,230
1958	3,250	3,250
1959	2,740	2,740
1960	3,280	3,280
1961	3,320	3,320
1962	3,520	3,520
1963	4,070	4,070
1964	2,640	2,640
1965	2,880	2,880
1966	2,740	2,740
1967	4,032	4,032
1968	4,041	4,041
1969	4,364	4,364
Total	93,113	93,113

STORAGE DIVISION

The construction costs of the storage facilities in the Storage division are charged in part to the Goshen, Gering-Fort Laramie, Pathfinder, and Northport Irrigation Districts as a part of their total construction obligations and in part to 10 irrigation districts and canal companies under Warren Act contracts. Final payment of the Warren Act contractors' share of the construction costs amounting to \$895,866 was made November 14, 1949. The Warren Act contractors also have repaid in full their share of the cost of rehabilitation and betterment work on Pathfinder Dam and Reservoir. These districts continue to advance their share of the annual cost of operating and maintaining the reserved works operated by the Bureau.

CONTRACTS

Beerline Irrigation Canal Co.—March 6, 1913, for purchase of 2,800 acre-feet for \$10,250, payable in 5 installments. Contract Ilr-479 of July 3, 1918, reduces to 1,639 acre-feet for \$5,040.

Brown's Creek Irrigation District.—Contract Ilr-1564 of July 14, 1913, and August 4, 1914, for purchase of 19,900 acre-feet for \$61,900, payable in 10 annual installments. Contracts of April 27, 1927, and November 30, 1914, allow extension of time of payment.

Central Irrigation District.—March 6, 1913, and contract Ilr-480 of August 4, 1914, for purchase of 4,050 acre-feet for \$12,275, payable in 10 annual installments.

Chimney Rock Irrigation Canal & Water Power Co.—March 6, 1913, and contract Ilr-481 of August 6, 1914, and August 30, 1916, for purchase of 10,300 acre-feet for \$32,900, payable in 10 annual installments. Contract of February 27, 1926, allows extension of final payment.

Gering Irrigation District.—January 17, 1913, and contract Ilr-482 of August 4, 1914, for purchase of 35,500 acre-feet for \$100,000, payable in 10 annual installments.

Tri-State Land Co.—August 20, 1912, and December 6, 1912, for purchase of 180,000 acre-feet for \$500,000, payable in 20 annual installments. By contract of August 10, 1915, company's interest assigned to Farmers' Irrigation District. Contract Ilr-215 of July 15, 1927, allowed extension of 8 years in time of payment.

Bridgeport Irrigation District.—Contract Ilr-483 of June 14, 1915, for purchase of 30,478 acre-feet for \$77,620, payable in 10 annual installments. By act of Congress of August 1, 1942, District's contract canceled and payments forfeited. Contract reduced by \$54,334, leaving a contract amount of \$23,286.

Goshen Land Co.—Contract Ilr-76 of July 1, 1915, for purchase of 29,244 acre-feet for \$94,260, payable in 10 annual installments. Contract of March 9, 1917, assigned rights of company to Lingle Water Users Association. By contract of May 10, 1922, association purchased 3,609 acre-feet additional for \$20,260, payable in 10 annual installments. Contract of September 29, 1926, extended time of payment of 1925 installment over 3 years. Contract of May 15, 1924, for purchase of additional storage right for \$380.

Pleasant Valley Lateral Association.—Contract Ilr-484 of June 6, 1915, and December 18, 1915, for purchase of 13,522 acre-feet for \$35,860, payable in 10 annual installments. Contract of December 15, 1928, assigned rights to Hill Irrigation District and allowed extension of time for payment of unpaid and unaccrued balances.

Lincoln Land Co.—Contract Ilr-485 of April 17, 1917, for purchase of 1,941 acre-feet for \$9,705, payable in 10 annual installments.

In addition to the above contracts, the following payments of interest, penalties, and funded operation and maintenance charges were required: Brown's Creek Irrigation District \$2,235, Lingle Water Users Association \$2,244, Hill Irrigation District \$6,968, and the Farmers' Irrigation District \$20,207.

In 1949, the several Warren Act contractors also signed 10-year contracts for repayment of the costs of rehabilitation and betterment of Pathfinder Dam and Reservoir. The total of

the Warren Act contractors' share of these costs is \$92,471.

In 1958, the several Warren Act contractors also signed 5-year contracts for repayment of the rehabilitation of the outlet works at Pathfinder Dam and Reservoir. The total of the Warren Act contractors' share of these costs is \$63,663.

Summary of status of the Storage division construc-

tion and rehabilitation and betterment repayment contracts:

Total value of contracted repayment	\$1,067,283
Total matured charges	1,067,283
Total matured charges repaid	1,067,283
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—STORAGE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1913	\$632,900	\$38,290		\$38,290	\$38,290		\$38,290	\$38,290
1914	717,325	6,372		6,372	1,227		1,227	39,517
1915	717,325	12,404		12,404	5,614	\$3,095	8,709	48,226
1916	925,065	39,822		39,822	7,000		7,000	55,226
1917	925,065	40,575		40,575	21,650	27,861	49,511	104,737
1918	934,770	61,136		61,136	21,041	9,686	30,727	135,464
1919	929,560	51,540	¹ \$5,210	46,330	28,488	29,129	57,617	193,081
1920	929,560	71,321		71,321	30,024	29,714	59,738	252,819
1921	929,560	81,306		81,306	10,971	32,263	43,234	296,053
1922	929,560	46,811		46,811	5,508	64,877	70,385	366,438
1923	949,820	75,037		75,037	4,115	34,172	38,287	404,725
1924	950,200	64,303		64,303	2,037	23,973	26,010	430,735
1925	950,200	64,445		64,445	1,504	29,476	30,980	461,715
1926	950,200	31,366		31,366	3,967	24,460	28,427	490,142
1927	951,855	30,526	¹ 19,865	10,661	2,026	33,306	35,332	525,474
1928	1,014,555	39,111	¹ 97,376	¹ 58,265	37,873	5,393	43,266	568,740
1929	1,014,555	40,123		40,123	38,715	1,238	39,953	608,693
1930	1,014,555	40,124		40,124	35,476	1,108	36,884	645,577
1931	1,020,403	37,563	¹ 7,602	29,961	33,511	1,324	34,835	680,412
1932	1,020,403	² 2,811		2,811	2,811	761	3,572	683,984
1933	1,021,347	² 16,471	¹ 7,376	9,095	15,696		15,696	699,680
1934	1,025,948	² 3,017	¹ 15,060	¹ 12,043	1,660	¹ 14,236	¹ 12,576	687,104
1935	1,028,909	² 3,111		3,111	1,134		1,134	688,238
1936	1,026,655	² 5,936		5,936	3,419	1,105	4,524	692,762
1937	1,026,655	² 11,873		11,873	9,916	1,358	11,274	704,036
1938	1,026,655	20,650		20,650	20,650	1,575	22,225	726,261
1939	1,026,655	23,180		23,180	23,180	49	23,229	749,490
1940	1,026,655	21,438		21,438	21,438		21,438	770,928
1941	1,026,655	18,577	¹ 2,911	15,666	18,576		18,576	789,504
1942	1,026,655	19,899		19,899	18,489		18,489	807,993
1943	972,320	22,018	¹ 54,334	¹ 32,316	20,607		20,607	828,600
1944	972,320	23,719		23,719	23,719	437	24,156	852,756
1945	972,320	29,750		29,750	29,750	423	30,173	882,929
1946	972,320	29,751		29,751	28,542	552	29,094	912,023
1947	972,320	28,896		28,896	12,232	2,424	14,656	926,679
1948	972,320					196	196	926,875
1949	972,320							926,875
1950	¹ 927,029		¹ 16,509	¹ 16,509		154	154	927,029
Total		1,153,272	¹ 226,243	927,029	580,856	346,173	927,029	

NOTE.—Exclusive storage costs repayable by Pathfinder, Goshen, Northport, and Gering-Fort Laramie Irrigation Districts.

¹ Decrease. 1919—Beerline contract reduced; 1927—Lingle 1925 installment deferred; 1928—Deferments Farmers and Brown Creek; 1941—Deferment Brown Creek; 1943—Bridgeport cancellation of contract and debt, act of

Aug. 1, 1942; 1947—Act of Congress of May 19, 1947 (Public Law 73), relieving Farmers' Irrigation District of \$59,853 in accrued interest.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Total amount of construction charges deferred for years 1931-36, \$169,089.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY—STORAGE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950	\$60,501	\$15,928		\$15,928	\$8,492		\$8,492	\$8,492
1951	60,501	8,250		8,250	3,125	\$10,360	13,485	21,977
1952	61,220	5,369		5,369	3,305	2,711	6,016	27,993
1953	94,636	8,466		8,466	8,816		8,816	36,809
1954	94,636	6,982		6,982	6,555		6,555	43,364
1955	94,636	6,981		6,981	7,439		7,439	50,803
1956	92,471	6,671		6,671	6,887		6,887	57,690
1957	92,471	5,883		5,883	5,883	293	6,176	63,866
1958	92,471	5,125		5,125	3,928		3,928	67,794
1959	¹ 170,332	4,443	³ \$440	4,003	4,390	1,421	5,811	73,605
1960	170,332	6,241		6,241	6,241	53	6,294	79,899
1961	170,332	20,104		20,104	19,816		19,816	99,715
1962	170,332	18,522		18,522	18,207	288	18,495	118,210
1963	² 156,134	13,936		13,936	13,717	90	13,807	132,017
1964	156,134	12,956		12,956	13,018		13,018	145,035
1965	156,134	10,717		10,717	11,099		11,099	156,134
Total		156,574	- 440	156,134	140,918	15,216	156,134	

¹ Repayment contracts for rehabilitation work at Pathfinder Dam..² Adjustment of contract value to actual costs.³ Decrease due to overpayment of accrual and subsequent refund.

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—STORAGE DIVISION—WARREN ACT CONTRACTORS

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—STORAGE DIVISION—WARREN ACT CONTRACTORS—Continued

Calendar year	Accruals	Collections
1913	\$2,514	\$2,217
1914	1,531	670
1915	3,943	2,054
1916	3,576	835
1917	3,668	7,172
1918	6,487	2,724
1919	6,077	11,021
1920	7,413	6,692
1921	3,707	2,459
1922	2,672	3,095
1923	17,571	6,438
1924	9,800	12,874
1925	9,420	13,633
1926	9,420	4,178
1927	7,065	2,182
1928	7,065	17,444
1929	7,065	9,258
1930	7,065	4,916
1931	7,947	10,300
1932	7,448	5,328
1933	4,778	2,059
1934	¹ 1,697	639
1935	5,404	4,816
1936	6,244	3,531
1937	4,515	7,064
1938	7,361	6,117
1939	6,841	5,260
1940	6,795	6,736
1941	5,826	6,411
1942	6,171	5,711
1943	¹ 3,810	5,976
1944	7,489	7,444
1945	7,088	7,154
1946	10,483	10,468
1947	11,496	11,077
1948	12,102	12,587
1949	10,485	10,485

Calendar year	Accruals	Collections
1950	8,428	8,368
1951	16,629	16,589
1952	23,669	23,604
1953	16,525	16,052
1954	23,232	22,721
1955	21,760	21,398
1956	21,389	21,385
1957	22,152	22,207
1958	23,711	23,533
1959	19,708	20,610
1960	19,382	19,118
1961	16,748	16,847
1962	17,647	17,644
1963	20,166	19,784
1964	13,703	13,593
1965	15,274	15,841
1966	14,810	14,810
1967	20,645	20,645
1968	22,945	22,945
1969	21,938	19,812
Total	619,486	617,131

¹ Decrease.

PAYOUT STUDY—NORTH PLATTE PROJECT

Fiscal year	ELECTRIC INVESTMENT REPAYMENT FROM POWER REVENUES					IRRIGATION INVESTMENT AND ANTICIPATED REPAYMENT					Earned surplus (cumulative)	
	Net operating revenues	Allocations to commercial electric plant		Applied to capital expenses, deficits, and adjustments	Power rights acquired		Original construction obligation		Rehabilitation and betterment			
		Electric plant	Amount repaid		Balance to be repaid	Total investment	Amount repaid	Balance to be repaid	Contract amount	Repayment schedule		Balance to be repaid
1909	\$2,042,566	\$2,093,738	\$2,042,566						\$5,008	(\$5,008)		
1910	149,849	2,249,311	149,849						65,929	(70,937)		
1911	134,666	2,256,776							27,822	(98,759)		
1912	155,934	2,257,050							(24,647)	(74,112)		
1913	171,814	2,255,285							82,783	476,005		
1914	156,537	2,261,786							16,685	543,745		
1915	154,760	2,261,786							717,325	482,557		
1916	148,588	2,253,331							61,188	575,215		
1917	124,163	2,316,264							115,082	5,711,286		
1918	124,497	2,316,264							152,804	6,107,112		
1919	139,748	2,324,649							128,796	5,950,275		
1920	155,934	2,230,112							211,466	5,950,275		
1921	163,883	2,068,581							244,002	5,715,354		
1922	148,588	2,274,772							265,284	5,615,081		
1923	138,717	2,316,264							179,904	7,226,907		
1924	182,497	2,324,649							136,978	7,142,790		
1925	139,748	2,320,112							58,900	7,096,153		
1926	155,934	2,257,050							48,919	13,424,269		
1927	171,814	2,255,285							119,486	13,440,147		
1928	156,537	2,261,786							182,917	13,148,828		
1929	148,588	2,274,772							292,917	19,960,800		
1930	138,717	2,316,264							152,732	19,726,714		
1931	182,497	2,324,649							92,191	19,571,915		
1932	139,748	2,320,112							347,892	19,236,380		
1933	155,934	2,257,050							288,301	18,955,911		
1934	171,814	2,255,285							360,843	18,607,104		
1935	156,537	2,261,786							173,887	18,363,226		
1936	148,588	2,274,772							131,995	18,237,476		
1937	138,717	2,316,264							125,189	18,106,891		
1938	182,497	2,324,649							144,697	17,971,695		
1939	139,748	2,320,112							262,687	17,709,456		
1940	155,934	2,257,050							330,775	17,376,856		
1941	171,814	2,255,285							299,316	17,077,540		
1942	156,537	2,261,786							299,046	16,778,500		
1943	148,588	2,274,772							293,149	16,485,351		
1944	138,717	2,316,264							22,108,821	16,070,959		
1945	182,497	2,324,649							314,066	15,756,893		
1946	139,748	2,320,112							338,208	15,419,160		
1947	155,934	2,257,050							347,702	15,080,152		
1948	171,814	2,255,285							385,086	14,852,857		
1949	156,537	2,261,786							285,593	14,567,264		
1950	148,588	2,274,772							434,428	14,132,836		
1951	138,717	2,316,264							575,818	13,339,469		
1952	182,497	2,324,649							460,873	12,588,596		
1953	139,748	2,320,112							355,193	12,523,403		
1954	155,934	2,257,050							6,710,846	3,876,178		
1955	171,814	2,255,285							6,710,846	3,974,933		
1956	156,537	2,261,786							125,703	4,136,593		
1957	148,588	2,274,772							351,821	4,009,537		
1958	138,717	2,316,264							116,107	3,893,363		
1959	182,497	2,324,649							113,126	3,727,271		
1960	139,748	2,320,112							113,198	3,662,952		
1961	155,934	2,257,050							113,198	3,549,752		
1962	171,814	2,255,285							111,853	3,318,617		
1963	156,537	2,261,786							107,712	3,210,793		
1964	148,588	2,274,772							109,712	3,101,981		
1965	138,717	2,316,264							108,486	2,992,595		
1966	182,497	2,324,649							107,778	2,884,817		
1967	139,748	2,320,112							106,409	2,777,888		
1968	155,934	2,257,050							106,409	2,677,479		
1969	171,814	2,255,285							105,269	2,566,210		
Subtotal	6,089,028	1,783,649	1,783,649	0	2,047,608	6,711,887	2,257,771	4,454,116	20,228,567	17,662,357	2,566,210	6,764,191

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—NORTH PLATTE PROJECT—Continued

Fiscal year	ELECTRIC INVESTMENT REPAYMENT FROM POWER REVENUES										IRRIGATION INVESTMENT AND ANTICIPATED REPAYMENT					Earned surplus (cumulative)
	Net operating revenues	Allocations to commercial electric plant		Applied to capital expenses, deficits, and adjustments	Power rights acquired		Original construction obligation		Rehabilitation and betterment							
		Electric plant	Amount repaid		Balance to be repaid	Total investment	Amount repaid	Balance to be repaid	Contract amount	Repayment schedule	Balance to be repaid	Contract amount	Repayment schedule			
1970	63,844	1,941,703	63,844	94,210	0	6,711,887	0	4,454,116	20,228,567	104,270	2,461,940	7,930,789	105,000	6,659,191		
1971	103,890	1,941,703	94,210	0	0	6,711,887	9,680	4,444,436	20,228,567	102,994	2,358,946	7,930,789	105,000	6,554,191		
1972	133,673	1,941,703	0	0	0	6,711,887	133,673	4,430,763	20,228,567	101,746	2,257,207	7,930,789	105,000	6,449,191		
1973	134,193	1,941,703	0	0	0	6,711,887	133,193	4,416,570	20,228,567	95,246	2,161,954	7,930,789	105,000	6,344,191		
1974	133,579	1,941,703	0	0	0	6,711,887	133,579	4,042,991	20,228,567	88,346	2,073,608	7,930,789	117,325	6,226,866		
1975	131,701	1,941,703	0	0	0	6,711,887	131,701	3,911,290	20,228,567	86,952	1,986,656	7,930,789	117,725	6,109,141		
1976	129,465	1,941,703	0	0	0	6,711,887	129,465	3,781,825	20,228,567	84,081	1,902,575	7,930,789	120,025	5,989,116		
1977	126,446	1,941,703	0	0	0	6,711,887	126,446	3,655,379	20,228,567	82,056	1,820,519	7,930,789	121,125	5,867,991		
1978	124,620	1,941,703	0	0	0	6,711,887	124,620	3,530,459	20,228,567	78,264	1,742,255	7,930,789	123,925	5,744,066		
1979	126,446	1,941,703	0	0	0	6,711,887	126,446	3,404,013	20,228,567	76,164	1,666,091	7,930,789	124,925	5,619,141		
1980	130,099	1,941,703	0	0	0	6,711,887	130,099	3,273,914	20,228,567	73,561	1,591,263	7,930,789	126,825	5,492,616		
1981	133,354	1,941,703	0	0	0	6,711,887	133,354	3,140,560	20,228,567	71,264	1,521,263	7,930,789	126,825	5,365,791		
1982	136,342	1,941,703	0	0	0	6,711,887	136,342	2,866,805	20,228,567	67,129	1,454,134	7,930,789	131,125	5,234,666		
1983	137,413	1,941,703	0	0	0	6,711,887	137,413	2,730,660	20,228,567	65,000	1,389,134	7,930,789	132,525	5,102,241		
1984	136,145	1,941,703	0	0	0	6,711,887	136,145	2,462,682	20,228,567	58,239	1,330,895	7,930,789	142,125	4,969,716		
1985	134,764	1,941,703	0	0	0	6,711,887	134,764	2,595,896	20,228,567	54,122	1,276,773	7,930,789	143,925	4,837,591		
1986	133,214	1,941,703	0	0	0	6,711,887	133,214	2,196,902	20,228,567	51,469	1,225,304	7,930,789	144,625	4,705,041		
1987	132,566	1,941,703	0	0	0	6,711,887	132,566	2,330,116	20,228,567	48,572	1,176,732	7,930,789	145,225	4,573,816		
1988	133,214	1,941,703	0	0	0	6,711,887	133,214	2,062,138	20,228,567	44,936	1,131,796	7,930,789	152,425	4,439,316		
1989	134,764	1,941,703	0	0	0	6,711,887	134,764	1,925,993	20,228,567	38,136	1,093,600	7,930,789	155,025	4,307,891		
1990	136,145	1,941,703	0	0	0	6,711,887	136,145	1,788,580	20,228,567	35,250	1,058,410	7,930,789	155,025	4,086,366		
1991	137,413	1,941,703	0	0	0	6,711,887	137,413	1,653,645	20,228,567	32,770	1,025,640	7,930,789	158,725	3,929,641		
1992	134,935	1,941,703	0	0	0	6,711,887	134,935	1,399,994	20,228,567	30,470	995,170	7,930,789	159,425	3,771,216		
1993	129,684	1,941,703	0	0	0	6,711,887	129,684	1,523,961	20,228,567	26,651	968,519	7,930,789	161,125	3,645,366		
1994	123,967	1,941,703	0	0	0	6,711,887	123,967	1,399,994	20,228,567	21,409	947,110	7,930,789	161,625	3,520,666		
1995	117,549	1,941,703	0	0	0	6,711,887	117,549	1,282,445	20,228,567	14,911	932,199	7,930,789	161,925	3,400,741		
1996	114,865	1,941,703	0	0	0	6,711,887	114,865	1,167,580	20,228,567	8,801	923,398	7,930,789	173,825	3,288,816		
1997	117,549	1,941,703	0	0	0	6,711,887	117,549	1,050,031	20,228,567	---	923,398	7,930,789	173,825	3,169,341		
1998	123,602	1,941,703	0	0	0	6,711,887	123,602	926,429	20,228,567	---	923,398	7,930,789	173,825	3,049,816		
1999	128,732	1,941,703	0	0	0	6,711,887	128,732	797,697	20,228,567	---	923,398	7,930,789	173,825	2,930,291		
2000	133,343	1,941,703	0	0	0	6,711,887	133,343	661,354	20,228,567	---	923,398	7,930,789	173,825	2,810,766		
2001	135,893	1,941,703	0	0	0	6,711,887	135,893	528,461	20,228,567	---	923,398	7,930,789	173,825	2,691,241		
2002	135,592	1,941,703	0	0	0	6,711,887	135,592	392,869	20,228,567	---	923,398	7,930,789	173,825	2,571,716		
2003	135,089	1,941,703	0	0	0	6,711,887	135,089	257,780	20,228,567	---	923,398	7,930,789	173,825	2,452,191		
2004	134,515	1,941,703	0	0	0	6,711,887	134,515	123,265	20,228,567	---	923,398	7,930,789	173,825	2,332,666		
2005	133,749	1,941,703	0	0	0	6,711,887	133,749	0	20,228,567	---	923,398	7,930,789	173,825	2,213,141		
2006	132,757	1,941,703	0	0	0	6,711,887	132,757	0	20,228,567	---	923,398	7,930,789	173,825	2,093,616		
2007	132,464	1,941,703	0	0	0	6,711,887	132,464	0	20,228,567	---	923,398	7,930,789	173,825	1,974,091		
2008	133,122	1,941,703	0	0	0	6,711,887	133,122	0	20,228,567	---	923,398	7,930,789	173,825	1,854,566		
2009	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,735,041		
2010	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,615,516		
2011	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,495,991		
2012	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,376,466		
2013	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,256,941		
2014	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,137,416		
2015	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	1,017,891		
2016	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	898,366		
2017	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	778,841		
2018	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	659,316		
2019	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	539,791		
2020	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	420,266		
2021	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	300,741		
2022	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	181,216		
2023	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	61,691		
2024	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2025	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2026	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2027	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2028	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2029	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2030	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2031	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		
2032	---	1,941,703	---	---	---	6,711,887	---	---	20,228,567	---	923,398	7,930,789	173,825	---		

2033	1,941,703	6,711,887	20,228,567	923,398	7,930,789	37,025	564,472	408,827
2034	1,941,703	6,711,887	20,228,567	923,398	7,930,789	36,125	528,347	408,827
2035	1,941,703	6,711,887	20,228,567	923,398	7,930,789	35,325	528,347	408,827
2036	1,941,703	6,711,887	20,228,567	923,398	7,930,789	36,222	456,800	408,827
2037	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	423,100	408,827
2038	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	389,400	408,827
2039	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	355,700	408,827
2040	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	322,000	408,827
2041	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	254,600	408,827
2042	1,941,703	6,711,887	20,228,567	923,398	7,930,789	33,700	288,300	408,827
2043	1,941,703	6,711,887	20,228,567	923,398	7,930,789	31,200	223,400	408,827
2044	1,941,703	6,711,887	20,228,567	923,398	7,930,789	26,800	196,600	408,827
2045	1,941,703	6,711,887	20,228,567	923,398	7,930,789	26,400	170,200	408,827
2046	1,941,703	6,711,887	20,228,567	923,398	7,930,789	26,100	144,100	408,827
2047	1,941,703	6,711,887	20,228,567	923,398	7,930,789	23,400	120,700	408,827
2048	1,941,703	6,711,887	20,228,567	923,398	7,930,789	18,800	101,900	408,827
2049	1,941,703	6,711,887	20,228,567	923,398	7,930,789	16,200	84,500	408,827
2050	1,941,703	6,711,887	20,228,567	923,398	7,930,789	15,500	68,300	408,827
2051	1,941,703	6,711,887	20,228,567	923,398	7,930,789	15,000	52,800	408,827
2052	1,941,703	6,711,887	20,228,567	923,398	7,930,789	14,500	37,800	408,827
2053	1,941,703	6,711,887	20,228,567	923,398	7,930,789	14,100	23,300	408,827
2054	1,941,703	6,711,887	20,228,567	923,398	7,930,789	9,200	9,200	408,827
2055	1,941,703	6,711,887	20,228,567	923,398	7,930,789	0	0	408,827
Total	11,110,025	1,941,703	0	2,047,608	6,711,887	19,305,169	7,930,789	408,827

1/ The entry shown for power commencing with fiscal year 1939 is the accumulation prior to and including fiscal year 1938.

2/ Pursuant to the act of May 25, 1948, authorizing the amendatory repayment contract of August 19, 1948, annual installment of \$3,500 payable by the Northport Irrigation District has been applied toward annual water carriage charges payable to Farmers' Irrigation District since 1956. It does not appear that any annual installments of \$3,500 will ever be available to reduce outstanding obligation of \$923,398.

OGDEN RIVER PROJECT

UTAH

Ogden River project in Weber and Box Elder Counties, near Ogden, Utah, was initiated on August 24, 1933, under the provisions of the National Industrial Recovery Act of 1933. Project construction was approved by the President on November 16, 1935.

The project furnishes a supplemental water supply to about 23,000 acres of land. Project features include the Pineview Dam and Reservoir, reconstructed Ogden Canyon conduit, Ogden-Brigham Canal, and the South Ogden Highline Canal, and also the South Ogden distribution high-pressure system constructed for the South Ogden Conservation District.

The total project cost including rehabilitation and betterment is \$5,699,971. In addition, the project has assumed a repayment obligation of \$118,260 from Weber Basin project.

Statement of cost and repayment:

Cost:

Pineview Dam and Reservoir	\$2,098,901
Other irrigation plant	3,255,043
Subtotal plant, property, and equipment	5,353,944
Deferred maintenance	337,000
Property transfers	9,027
Total cost	5,699,971

Other charges:

Repayment obligations assumed from Weber Basin project	118,260
O&M deficit funded	2,362
Total	5,820,593

Allocation:

Irrigation	5,403,856
Commercial power	261,115
Municipal and industrial water	35,000

Repayment and other credits:

Repayment realized:

Repayment contracts matured	2,476,505
Contributions	12,667

Miscellaneous revenues	970
Income from land	81,562

Subtotal repayments realized 2,571,704

Anticipated future repayment:

Repayment contract unmatured 2,989,380

Total repayment 5,561,084

Other credits:

Nonreimbursable—Civilian Conservation Corps

Costs 278,000

Total repayment and other credits 5,839,084

Surplus 18,491

The present irrigable area for service is 24,801 acres, with 15,812 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$2,879,727 and \$182.12, respectively.

Operation and maintenance of the project, except the South Ogden distribution system, was transferred to the Ogden River Water Users' Association on August 1, 1937. The South Ogden distribution system is operated and maintained by the South Ogden Conservation District.

Repayment contracts.—The original Ogden River Water Users' Association repayment contract was signed May 31, 1934, and the original South Ogden Conservation District contract was signed May 13, 1940. The Ogden River Water Users' Association amendatory contract, signed on May 23, 1950, provides for the full repayment of the Association's obligation in 62 years, including the 1950 payment.

CONTRACTS AND NOTICE

1934, May 31; 1935, November 30; 1936, November 27: Contract IIr-761 with Ogden River Water Users' Association for construction of Pineview Reservoir. Estimated cost, \$4,200,000, payable in 40 equal annual installments.

1934, August 20: Contract IIr-776 with city of Ogden for municipal water supply. Cost, \$35,000, payable in 10 equal annual installments (paid in full).

- 1934, October 18: Contract 11r-773 with Utah Power & Light Co. for construction of wood-stave pipeline. Cost, \$261,115, payable in 20 equal annual installments (paid in full).
- 1940, May 13: Contract 11r-1214 with South Ogden Conservation District for construction of distribution system. Estimated cost, \$345,000, payable in 39 equal annual installments.
- 1948, April 7: Letter notice to South Ogden Conservation District that total construction cost under contract dated May 13, 1940, was determined to be \$321,666.41.
- 1948, August 23: Contract with South Ogden Conservation District for additional construction of South Ogden Distribution System. Cost, \$272,062, payable in 40 equal annual installments.
- 1950, May 23: Amendatory contract with Ogden River Water Users' Association for its unpaid construction obligation of \$3,403,500, payable in 62 annual installments with optional price index variable repayment plan. Supersedes the contracts between the Association and the United States, i.e., May 31, 1934; November 30, 1935; and November 27, 1936.

- 1958, June 16: Contract 14-06-400-768 with the South Ogden Conservation District for rehabilitation and betterment of District works. The sum of \$393,950 is to be repaid in 35 successive annual payments.
- 1964, March 12: Contract 14-06-400-3417 among the United States, Ogden River Water Users Association, and the Weber Basin Water Conservancy District for settlement of Ogden River Water Users' claim relating to the enlarged Pineview Dam and Reservoir requiring a land adjustment of 47.8 acres, which resulted in a perpetual right to the Association of 875 acre-feet of Weber Basin project water.
- 1965, March 12: Contract 14-06-400-3943 with the Ogden River Water Users Association for rehabilitation and betterment of project works for the sum of \$337,000, to be repaid in 20 annual installments.

Summary of status of repayment contracts:

Total value of repayment contracts	\$5,465,885
Total matured charges	2,476,505
Total matured charges repaid	2,476,505
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$2,935,000							
1936	3,535,000							
1937	4,496,115							
1938	4,496,115							
1939	4,496,115							
1940	4,841,115							
1941	4,841,115							
1942	4,841,115							
1943	4,841,115	\$91,821		\$91,821	\$16,556		\$16,556	\$16,556
1944	4,841,115	119,821		119,821	44,555		44,555	61,111
1945	¹ 4,101,380	97,168	² \$150,531	² 53,363	97,168		97,168	158,279
1946	4,404,380	97,167		97,167	97,167		97,167	255,446
1947	4,404,380	293,003		293,003	293,003		293,003	548,449
1948	4,381,046	84,111		84,111	84,111		84,111	632,560
1949	4,381,046	83,445		83,445	63,499		63,499	696,059
1950	4,659,046	83,445		83,445	73,445	\$19,946	93,391	789,450
1951	4,740,873	74,479	² 10,000	64,479	74,479		74,479	863,929
1952	¹ 4,734,935	74,479		74,479	74,479		74,479	938,408
1953	4,734,935	81,281		81,281	81,281		81,281	1,019,689
1954	4,734,935	81,281		81,281	81,281		81,281	1,100,970
1955	4,734,935	81,281		81,281	81,281		81,281	1,182,251
1956	4,734,935	81,281		81,281	81,281		81,281	1,263,532
1957	4,734,935	81,282		81,282	81,282		81,282	1,344,814
1958	4,734,935	81,281		81,281	81,281		81,281	1,426,095
1959	4,734,935	82,031		82,031	82,031		82,031	1,508,126
1960	5,184,935	81,281		81,281	81,281		81,281	1,589,407
1961	5,184,935	81,281		81,281	81,281		81,281	1,670,688
1962	¹ 5,128,885	81,281		81,281	81,281		81,281	1,751,969
1963	5,128,885	91,881		91,881	91,881		91,881	1,843,850
1964	5,128,885	91,881		91,881	91,881		91,881	1,935,731
1965	5,465,885	91,882		91,882	91,882		91,882	2,027,613
1966	5,465,885	91,881		91,881	91,881		91,881	2,119,494
1967	5,465,885	91,880		91,880	91,880		91,880	2,211,374
1968	5,465,885	91,881		91,881	91,881		91,881	2,303,255
1969	5,465,885	173,250		173,250	173,250		173,250	2,476,505
Total		2,637,036	- 160,531	2,476,505	2,456,559	19,946	2,476,505	

¹ Decrease in obligation represents adjustment to actual cost.² Decrease. Decrease covers amounts deferred under 1939 act. Ogden River

Water Users' Association construction charges deferred under act of Aug. 4, 1939, calendar years 1942, \$75,266; 1943, \$75,265.

OKANOGAN PROJECT

WASHINGTON

The construction of Okanogan project in Okanogan County, Wash., was authorized by the Secretary of the Interior on December 2, 1905, under authority of the Reclamation Project Act of 1902 (32 Stat. 388). Project facilities include Conconully Dam and Reservoir and Salmon Lake Dam and Reservoir, a diversion dam in Salmon Creek, and a main canal.

The project was developed to provide irrigation water for approximately 10,000 acres of land, devoted principally to apple production, on the west side of Okanogan River. Due to a recurring shortage of water, the maximum irrigable acreage ever attained on the project was approximately 7,000 acres in 1929. Since that time, additional reductions in the irrigable acreage have taken place so that the remaining lands might have an assured water supply. The irrigable area for service was 5,038 acres in 1969 and the irrigated area consisted of 3,947 acres. The gross value of crops produced on the project lands in 1969 was \$684,747 and the average value per irrigated acre was \$173.49.

The total cost of original construction for the Okanogan project was \$1,484,323. Rehabilitation work totaling \$125,852 has been completed. The total estimated project cost is \$2,580,175. By acts of May 25, 1926, May 25, 1928, and January 30, 1954, construction cost chargeoffs totaled \$978,030.

Because of extreme emergency conditions, a \$970,000 program to rehabilitate Conconully Dam is now under way. As of June 30, 1969, costs for this work total \$874,890. Repayment negotiations are pending.

Cost allocation and repayment:

Cost:	
Original construction—irrigation plant	\$1,484,323
Emergency repairs—Conconully Dam	970,000
Rehabilitation costs	106,920
Deferred maintenance—rehabilitation and betterment	18,932
Total construction cost	2,580,175

Interest and penalties	20,750
Total	2,600,925
Repayment:	
Reimbursable:	
Repayment contract	594,598
Contract under negotiation	970,000
Water rentals	47,766
Miscellaneous receipts	10,990
Total	1,623,354
Nonreimbursable—irrigation	978,030
Total	2,601,384
Surplus	459

Operation and maintenance of the irrigation system was assumed by the Okanogan Irrigation District on December 31, 1928.

Repayment contracts.—The original contract for construction of the Okanogan project was with the Okanogan Water Users' Association on April 16, 1906. On February 10, 1919, the United States first contracted with the Okanogan Irrigation District. On September 20, 1948, an amendatory contract was signed that provided for payment by the District of \$326,247.64 in annual installments of \$10,003.09 each, varied by a gross-income ratio and by a parity ratio.

On August 15, 1951, the Okanogan Irrigation District signed a contract to repay the costs of rehabilitating Conconully Dam. The maximum repayment obligation of this contract is \$126,000, to be consolidated with the original project construction obligation and to be repaid under the same rate and terms. Repayment of total obligations will be completed by about 1991.

Due to emergency work performed by the District on Conconully Dam, the 1965 construction charge of \$15,433 was deferred by supplemental contract 14-06-100-5505, dated May 12, 1966.

PUBLIC NOTICES AND CONTRACTS

- 1906, April 16: Contract with Okanogan Water Users' Association to guarantee payment of project costs apportioned to shareholders of association.
- 1908, November 12: Public notice. Construction charge of \$65 per acre, payable in 10 equal annual installments.
- 1912, April 29: Public notice. Construction charge raised to \$70 per acre, payable in annual installments of \$8 each, with first installment due on May 1, 1912.
- 1912, May 11: Contract with Okanogan Water Users' Association amending contract of April 16, 1906.
- 1917, April 18: Public notice. Construction charge of \$95 per acre, payable in 20 graduated annual installments.
- 1918, August 29: Public notice. Supplemental construction for pumping plant. Rate, \$12.50 per acre, payable in two annual installments after regular construction.
- 1919, February 10: Contract with Okanogan Irrigation District. District assumes obligations under individual water-right applications. Delinquent charges and penalties funded with construction.
- 1928, November 24: Contract with Okanogan Irrigation District. Remaining obligation of District reduced to \$310,000, payable in 31 equal annual installments beginning with year 1928, plus \$4,259 for equipment taken over to be paid for in 10 years.

- 1948, September 20: Contract I1r-1534 with Okanogan Irrigation District. Obligation of District to be repaid in installments of \$10,033.09 each, adjusted by a gross-income ratio and by a parity ratio. Construction charge payments due semiannually on May 15 and August 1. Irrigable acreage, 4,459.15.
- 1951, August 15: Contract I74r-1649 with Okanogan Irrigation District. Provides for rehabilitation and betterment of Conconully Dam at a cost not to exceed \$126,000. Costs of rehabilitation to be funded with the original project construction obligation and repaid under the same terms as that obligation.
- 1966, May 12: Supplemental contract 14-06-100-5505 with Okanogan Irrigation District. Provides for deferment of 1965 construction charges, \$15,432.89. Repayment scheduled for 15 years beginning with 1966 installment. Base installment under 1948 increased for 15 years or until repayment achieved.

Summary of status of repayment contracts:

Total value of contracted repayment	\$594,598
Total matured charges	402,336
Total matured charges repaid	402,336
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1909		\$13,785		\$13,785	\$330		\$330	\$330
1910		52,512		52,512	13,182		13,182	13,512
1911		52,766		52,766	8,690		8,690	22,202
1912		610	¹ \$52,273	¹ 51,663	26	¹ \$7,349	¹ 7,323	14,879
1913		706	122	828	242	720	962	15,841
1914		706		706	82	464	546	16,387
1915							66	16,453
1916		130	135	265	125	12	137	16,590
1917	\$780,859			¹ 52,527			59	16,649
1918	811,649			17,370			14,584	31,233
1919	812,014	¹ 21,551		88	17,884		337	31,570
1920	821,796			13,289			2,087	33,657
1921	821,796			229			751	34,408
1922	1,303,003	3,196	¹ 133	3,063	123	6,596	6,719	41,127
1923	1,498,579	12,261	¹ 829	11,432	5,818	7,336	13,154	54,281
1924	1,497,840	6,110	¹ 1,209	4,901	2,854	6,603	9,457	63,738
1925	1,497,840	14,617		14,617	69	1,007	1,076	64,814
1926	1,513,288	24,004		24,004	3,144	5,595	8,739	73,553
1927	1,513,288	46,193		46,193		27,398	27,398	100,951
1928	1,513,288	18,215		18,215		6,548	6,548	107,499
1929	¹ 424,199	10,426	¹ 60,133	¹ 49,707	10,426	2,441	12,867	120,366
1930	424,199	10,425		10,425	10,425		10,425	130,791
1931	424,199	10,426		10,426	426		426	131,217
1932	424,199	² 10,426		10,426	2,155		2,155	133,372
1933	424,199	² 10,426		10,426	426		426	133,798
1934	424,199	² 10,426		10,426	426		426	134,224
1935	426,998	² 426	¹ 38,271	¹ 37,845	426		426	134,650
1936	425,875	² 2,826		2,826	2,826		2,826	137,476
1937	425,887	² 5,426		5,426	426		426	137,902
1938	425,887	² 5,426		5,426	426		426	138,328
1939	425,887	² 10,000		10,000				138,328
1940	425,887	² 10,000	¹ 20,000	¹ 10,000				138,328
1941	425,887	10,000		10,000				138,328
1942	425,887	10,000	¹ 20,000	¹ 10,000				138,328
1943	425,887	10,000		10,000				138,328
1944	425,887	10,000		10,000				138,328
1945	425,887	10,000		10,000				138,328
1946	425,887	10,000		10,000				138,328
1947	425,887	10,000		10,000				138,328
1948	425,887	10,000		10,000				138,328
1949	425,887	10,000		10,000				138,328
1950	³ 468,598	19,103	⁴ 80,000	⁴ 60,897	19,103		19,103	157,431
1951	468,598	9,877		9,877	9,877		9,877	167,308
1952	⁵ 594,598	10,874		10,874	10,874		10,874	178,182
1953	594,598	14,506		14,506	14,506		14,506	192,688
1954	594,598	20,066		20,066	20,066		20,066	212,754
1955	594,598	15,640		15,640	15,640		15,640	228,394
1956	594,598	11,745		11,745	11,745		11,745	240,139
1957	594,598	10,179		10,179	10,179		10,179	250,318
1958	594,598	9,036		9,036	9,036		9,036	259,354
1959	594,598	7,457		7,457	7,457		7,457	266,811
1960	594,598	7,104		7,104	7,104		7,104	273,915
1961	594,598	10,688		10,688	10,688		10,688	284,603
1962	594,598	10,314		10,314	10,314		10,314	294,917
1963	594,598	11,271		11,271	11,271		11,271	306,188
1964	594,598	13,939		13,939	13,939		13,939	320,127
1965	594,598	11,387		11,387	11,387		11,387	331,514
1966	594,598	4,451		4,451	4,451		4,451	335,965
1967	594,598	22,124		22,124	22,124		22,124	358,089
1968	594,598	22,123		22,123	22,123		22,123	380,212
1969	594,598	22,124		22,124	22,124		22,124	402,336
Total		674,927	-272,591	402,336	344,965	57,371	402,336	

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts. 1912—Adjustment under 1912 public notice. 1917—Reclamation Extension Act of Aug. 13, 1914. 1929—Decrease in obligation due to provisions of 1928 contract.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$8,924; 1931, \$10,625; 1932, \$10,325; 1933, \$10,025; 1934, \$10,025; 1935, \$10,025; 1936, \$10,012. Deferred under acts of Aug. 21, 1937; May 31,

1939, and Aug. 4, 1939, charges for calendar years 1937, \$10,000; 1938, \$10,000; 1939, \$10,000; 1940, \$10,000.

³ Obligation increased by amendatory contract Ilr-1534, dated Sept. 20, 1948, to include cost of economic report and interest on delinquent installments.

⁴ Decrease. Delinquent installments have been canceled and made subject to repayment under new contract.

⁵ Includes maximum obligation for rehabilitation, \$126,000.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1909-----	\$3,183	\$2,996
1910-----	12,120	9,159
1911-----	17,497	20,498
1912-----	147	259
1913-----	1,620	1,504
1914-----	873	1,024
1915-----	0	0
1916-----	861	802
1917-----	866	808
1918-----	18,149	9,727
1919-----	15,395	1,184
1920-----	29,362	24,100
1921-----	58,122	49,170
1922-----	26,781	47,100
1923-----	35,992	48,918
1924-----	62,556	49,775
1925-----	35,983	3,998
1926-----	66,123	41,179
1927-----	106,615	13,235
1928-----	50,846	40,356
1929-----	¹ 171,649	5,650
Total-----	371,442	371,442

¹ Decrease.

ORLAND PROJECT

CALIFORNIA

Orland project was conditionally approved by the Secretary of the Interior on December 18, 1906, shortly after the formation of the Orland Unit Water Users' Association. The conditions were met and the authorization made definite on October 5, 1907.

The original project considered irrigation of about 14,000 acres of land surrounding and adjacent to the town of Orland, Glenn County. Principal features included East Park Dam and Reservoir and a distribution system. Additional features were constructed immediately after completion of the original structures, Rainbow Dam on Big Stony Creek and the feeder canal diverting into East Park Reservoir. Supplementary construction of the distribution system added 6,000 acres for cultivation. Further enlargement of storage facilities was made in 1928 with the construction of Stony Gorge Dam.

The total construction cost of the project, excluding rehabilitation and betterment charges, is \$3,275,063.

In 1969, the irrigable area for service was 19,420 acres and the area irrigated 16,855. The gross crop value was \$1,896,156 and the average value per irrigated acre was \$112.50.

Since October 1, 1954, the project has been operated and maintained by the Orland Unit Water Users' Association.

Repayment contracts.—The original agreement between the United States and the Orland Unit Water Users' Association, dated April 3, 1909, provided for the construction of East Park and Rainbow Diversion Dams, and initial distribution facilities of the project. Supplemental agreements made possible the expansion of distribution facilities to accommodate about 20,000 acres of land, as well as the construction of Stony Gorge Dam. Amendatory contracts were signed with each individual water user subsequent to the act of June 24, 1936, providing for full repayment of all construction and deferred costs. Under a provision of the contract

of August 26, 1954, providing for the operation and maintenance of the project by the Orland Unit Water Users' Association, the Association assumed joint responsibility with the individual water users for the repayment of construction charges. Repayment will be substantially completed by 1976, though small amounts will be due annually until 2005. Application of surpluses to the construction obligation will reduce this period by about 7 or 8 years. Final repayment will be made about 1998.

PUBLIC NOTICES AND CONTRACTS

- 1909, April 3: Contract with Orland Unit Water Users' Association guarantees repayment of construction charges.
- 1916, May 24: Public notice: Construction charge, \$44 per acre, payable in 20 annual graduated installments; certain exceptions requiring repayment in 10 equal annual installments or in 15 annual graduated installments.
- 1918, April 2: Public notice: Supplemental construction; rate, \$11 per acre, payable in 18 annual graduated installments.
- 1926, June 15: Public notice: Supplemental construction; rate, \$68 per acre, payable in additional annual installments at \$4 per irrigable acre per annum, beginning December 1, 1936, and continuing until complete repayment.
- 1936: Amendatory contracts with each individual water-right applicant providing supplemental construction charges of \$68 per acre plus any construction and/or operation and maintenance charges due June 24, 1936, with accrued interest or penalties, shall be paid in 35 annual installments commencing March 1, 1937, and due December 1, thereafter.
- 1954, August 26: Contract 14-06-200-3502 with Orland Unit Water Users' Association for the care, operation, and maintenance of the Orland project; effective October 1, 1954.
- 1956, May 14: Contract 14-06-200-5559 with Orland Unit Water Users' Association for a maximum loan of \$250,000 for rehabilitation and betterment of the distribution system of the Orland project, and providing for repayment of the costs by the association.
- 1956, September 6: Amendatory contract 14-06-200-5559 with Orland Water Users' Association to provide for broaden-

ing of the scope of rehabilitation and betterment work necessitated by the recent flood flows of Stony Creek.

1959, May 7: Contract 14-06-200-7735 with Orland Unit Water Users' Association to provide for continuation of rehabilitation and betterment work initiated by contract 14-06-200-5559 by providing for an additional maximum loan of \$250,000 over a 3-year period.

1962, September 19: Contract 14-06-200-243-A with Orland Unit Water Users' Association to provide for completion of rehabilitation and betterment work initiated by contract 14-06-200-5559 by providing for an additional maximum loan of \$250,000 over a 3-year period.

1965, July 19: Amendatory contract 14-06-200-243-A with Orland Unit Water Users' Association provided additional time to accomplish rehabilitation work initiated under contract 14-06-200-243-A and repair to the Rainbow Diversion Dam. Additional time was provided for repayment.

Project costs are allocated entirely to irrigation for repayment, as follows:

Irrigation plant cost	\$3,275,063
Property transfers	24,320
Total cost	3,299,383
Funded charges	155,008
Total	3,454,391
Repayment realized June 30, 1969:	
Repayment contracts matured	2,452,427
Miscellaneous net income	23,290
Direct payments	1,932
Total repayment to June 30, 1969	2,477,649
Anticipated future repayment:	
Repayment contracts unmatured	1,036,526
Total repayments	3,514,175
Surplus	59,784

Municipal and miscellaneous water contracts.—At the request of the unincorporated town of Elk Creek, the Glenn County High School, Elk Creek Elementary School, and Elk Creek Cemetery District for an adequate water supply for irrigation and miscellaneous purposes, a contract was executed to furnish 45 acre-feet per annum out of Stony Gorge Dam. Contract 115r-107 was executed on March 25, 1936, upon receipt of \$1,147.50, the construction charge allocated against Stony Gorge Dam cost for delivery of 45 acre-feet per annum. Annual operation and maintenance charges prevailing on the project are also levied and collected. The project lands have prior water rights. On

January 28, 1953, contract No. 115r-107 was amended by contract 14-06-206-34 to furnish up to 100 acre-feet per annum in lieu of 45 acre-feet from Stony Gorge upon receipt of \$1,402.50. This is the additional construction charge allocated against Stony Gorge Dam for delivery of a quantity of water in excess of 45 acre-feet but not to exceed 100 acre-feet per annum.

Rehabilitation and betterment.—By a resolution dated February 24, 1950, the board of directors of the Orland Unit Water Users' Association requested a program of rehabilitation and betterment on project facilities not exceeding \$250,000. This was accomplished during fiscal years 1949, 1950, 1951, and 1952, and funds expended will be reimbursed by increasing the annual operation and maintenance charge, payable by each water user, in the amount of \$0.67 per acre per annum beginning with the year 1950 and continuing until fully repaid.

On April 19, 1954, the North Diversion Dam failed. Temporary measures provided service during that irrigation season, and the dam was replaced the following autumn at a total cost of \$42,491. Repayment of this cost is provided for in the operation and maintenance contract of August 26, 1954, by extending the \$0.67 per acre charge for the rehabilitation and betterment mentioned above.

The work undertaken in the contracts of May 14, 1956 (as amended), May 7, 1959, and September 19, 1962 (as amended) constituted a total rehabilitation and betterment program largely for improvement of canals, laterals and sublaterals over an 11-year period which began in fiscal year 1957. Such work was estimated to cost about \$750,000. The Association desired to contract for a loan for such work on the basis of three consecutive programs of 3 years each. The work was performed by the Association with funds advanced by the United States. Repayment will be made by the Association, and is expected to be available through savings in annual operation and maintenance costs occasioned by rehabilitation. Larger annual payments will be made after construction costs are substantially repaid.

Summary of status of repayment contracts:

Total value of contracted repayment	\$3,488,953
Total matured charges	2,452,427
Total matured charges repaid	2,452,427
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1917	\$735,405	\$14,708		\$14,708	\$14,708		\$14,708	\$14,708
1918	1,019,779	21,374		21,374	21,374		21,374	36,082
1919	1,046,033	23,356		23,356	23,356		23,356	59,438
1920	1,054,474	16,484		16,484	16,484		16,484	75,922
1921	1,061,211	48,308		48,308	48,308		48,308	124,230
1922	1,063,532	44,433		44,433	44,433		44,433	168,663
1923	1,066,904	66,566		66,566	66,566		66,566	235,229
1924	1,068,928	66,575		66,575	66,575		66,575	301,804
1925	1,068,570	66,455		66,455	36,659		36,659	338,463
1926	1,068,570	66,553		66,553	52,998	\$29,796	82,794	421,257
1927	¹ 2,439,115	66,382		66,382	53,391	11,319	64,710	485,967
1928	2,446,427	66,139		66,139	55,534	12,060	67,594	553,561
1929	2,450,720	67,582		67,582	54,696	10,684	65,380	618,941
1930	2,482,343	66,599		66,599	54,554	9,680	64,234	683,175
1931	2,474,446	66,388	² \$2,232	64,156	47,027	8,069	55,096	738,271
1932	2,475,061	66,595		66,595	15,753	7,485	23,238	761,509
1933	2,466,451	³ 45,709	² 55,645	² 9,936	20,682	² 1,093	19,589	781,098
1934	2,471,584	³ 22,479	² 43,033	² 20,554	6,771	² 16,345	² 9,574	771,524
1935	2,475,403	³ 37,628	² 20,159	17,469	8,334	² 6,043	2,291	773,815
1936	2,473,363	³ 20,244	² 16,737	3,507	6,026	² 645	5,381	779,196
1937	2,499,849	³ 24,780	² 21,005	3,775	11,596	² 2,866	8,730	787,926
1938	2,503,415	23,909	² 23,417	492	14,499	² 1,682	12,817	800,743
1939	2,499,250	31,942	² 4,537	27,405	23,191	3,317	26,508	827,251
1940	2,500,802	30,094	² 2,466	27,628	17,343	4,767	22,110	849,361
1941	2,499,352	36,768	² 2,638	34,130	22,361	8,523	30,884	880,245
1942	2,473,464	35,962	² 14,842	21,120	21,996	2,992	24,988	905,233
1943	2,470,553	36,850	² 239	36,611	25,209	11,526	36,735	941,968
1944	2,469,157	43,560	² 1,726	41,834	31,934	8,953	40,887	982,855
1945	2,463,340	43,132	² 5,728	37,404	33,067	8,267	41,334	1,024,189
1946	2,463,574	42,104	² 110	41,994	33,915	9,691	43,606	1,067,795
1947	2,440,794	41,834	² 12,186	29,648	32,631	2,045	34,676	1,102,471
1948	2,402,194	40,887	² 22,574	18,313	32,953	² 2,966	29,987	1,132,458
1949	2,398,479	40,825	² 1,741	39,084	32,228	7,415	39,643	1,172,101
1950	2,394,364	40,821	² 2,451	38,370	30,085	9,388	39,473	1,211,574
1951	2,419,635	40,745		40,745	34,146	8,714	42,860	1,254,434
1952	2,428,995	41,059	² 159	40,900	32,678	5,283	37,961	1,292,395
1953	2,452,699	39,527		39,527	40,655		40,655	1,333,050
1954	2,453,781	40,942		40,942	39,664		39,664	1,372,714
1955	2,453,522	42,422		42,422	43,305		43,305	1,416,019
1956	2,457,212	39,645		39,645	38,619		38,619	1,454,638
1957	2,457,212	41,480		41,480	45,184		45,184	1,499,822
1958	2,475,663	42,094		42,094	43,218		43,218	1,543,040
1959	2,500,422	43,719		43,719	48,993		48,993	1,592,033
1960	2,500,422	42,422		42,422	42,422		42,422	1,634,455
1961	2,500,422	42,129		42,129	42,129		42,129	1,676,584
1962	2,505,477	42,285		42,285	42,285		42,285	1,718,869
1963	2,505,477	42,195		42,195	42,195		42,195	1,761,064
1964	2,505,477	44,022		44,022	44,022		44,022	1,805,086
1965	2,505,477	43,359		43,359	43,359		43,359	1,848,445
1966	2,505,477	43,370		43,370	43,370		43,370	1,891,815
1967	2,505,477	53,548		53,548	53,548		53,548	1,945,363
1968	2,505,477	42,829		42,829	42,829		42,829	1,988,192
1969	2,505,477	49,690		49,690	49,690		49,690	2,037,882
Total		2,291,507	-253,625	2,037,882	1,889,548	148,334	2,037,882	

¹ Increase in obligation due to supplemental construction under 1926 public notice.

² Decrease—decreases cover cancellation of water right applications and

deferment of charges under relief acts.

³ Moratorium period 1932 through 1937; acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936.

REPAYMENT OF RECLAMATION PROJECTS

REHABILITATION AND BETTERMENT REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950-----	\$250,000	\$12,830	-----	\$12,830	\$12,528	-----	\$12,528	\$12,528
1951-----	250,000	13,085	-----	13,085	12,844	\$244	13,088	25,616
1952-----	250,000	12,996	-----	12,996	12,735	135	12,870	38,486
1953-----	249,922	12,933	-----	12,933	12,824	-----	12,824	51,310
1954-----	249,922	13,024	-----	13,024	12,952	-----	12,952	64,262
1955-----	294,921	13,014	-----	13,014	12,750	-----	12,750	77,012
1956-----	542,413	13,168	-----	13,168	12,418	-----	12,418	89,430
1957-----	542,413	13,094	-----	13,094	12,967	-----	12,967	102,397
1958-----	542,413	13,125	-----	13,125	12,497	-----	12,497	114,894
1959-----	792,413	13,325	-----	13,325	15,700	-----	15,700	130,594
1960-----	785,780	23,326	-----	23,326	23,326	-----	23,326	153,920
1961-----	785,780	23,261	-----	23,261	23,261	-----	23,261	177,181
1962-----	785,780	23,279	-----	23,279	23,279	-----	23,279	200,460
1963-----	984,718	28,251	-----	28,251	28,251	-----	28,251	228,711
1964-----	984,718	28,367	-----	28,367	28,367	-----	28,367	257,078
1965-----	984,718	28,271	-----	28,271	28,271	-----	28,271	285,349
1966-----	984,718	28,272	-----	28,272	28,272	-----	28,272	313,621
1967-----	983,476	34,856	-----	34,856	34,856	-----	34,856	348,477
1968-----	983,476	33,049	-----	33,049	33,049	-----	33,049	381,526
1969-----	983,476	33,018	-----	33,018	33,018	-----	33,018	414,544
Total--	-----	414,544	-----	414,544	414,165	379	414,544	-----

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1918	\$26,477	\$26,382
1919	30,251	30,345
1920	34,599	34,293
1921	40,335	40,641
1922	41,544	41,434
1923	37,726	37,617
1924	34,774	34,810
1925	33,276	26,692
1926	34,328	35,606
1927	32,839	31,246
1928	34,965	35,214
1929	32,449	32,078
1930	34,998	33,228
1931	39,561	33,206
1932	38,199	29,267
1933	38,683	30,905
1934	36,103	34,977
1935	34,036	32,130
1936	32,617	30,879
1937	13,169	25,497
1938	30,060	38,345
1939	32,346	31,852
1940	36,291	36,516
1941	34,567	33,287
1942	30,145	32,476
1943	34,770	34,102
1944	51,199	50,104
1945	50,331	51,946
1946	57,677	57,730
1947	64,585	68,663
1948	61,632	68,762
1949	81,241	81,819
1950	91,735	91,665
1951	92,826	93,928
1952	93,999	92,904
1953	122,178	120,864
1954 ¹	124,090	123,039
Total	1,770,601	1,764,449

¹ Water users assumed operation and maintenance on Oct. 1, 1954.

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY

Construction			Rehabilitation and betterment		
Fiscal year	Estimated payments	Balance to repay	Fiscal year	Estimated payments	Balance to repay
1969	\$49,690	\$467,595	1969	\$33,018	\$568,931
1970	49,333	418,262	1970	33,033	535,898
1971	49,765	368,497	1971	33,033	502,865
1972	59,981	308,516	1972	27,554	475,311
1973	59,188	249,328	1973	20,000	455,311
1974	59,046	190,282	1974	20,000	435,311
1975	63,178	127,104	1975	20,000	415,311
1976	63,831	63,273	1976	20,000	395,311
1977 ¹	63,273	0	1977	60,000	335,311
			1978	40,000	295,311
			1979	40,000	255,311
			1980	40,000	215,311
			1981	40,000	175,311
			1982	40,000	135,311
			1983	35,000	100,311
			1984	10,000	90,311
			1985	40,000	50,311
			1986	40,000	10,311
			1987	10,311	0

¹ Small amounts due annually until fiscal year 2005.

OWYHEE PROJECT

IDAHO—OREGON

The Owyhee project was found feasible by the Secretary of the Interior on October 9, 1926, and approved by the President on October 12, 1926. The project is composed of the Succor Creek, Mitchell Butte, and Dead Ox Flat divisions.

The purpose of the project is to irrigate approximately 105,000 acres of land in Idaho and Oregon, and in addition furnish a supplemental water supply to about 13,000 acres in Oregon. In 1969, the irrigable acreage for service and the irrigated area of the project were 118,249 acres and 110,249 acres, respectively. The gross crop value in 1969 was \$24,360,538 and the average value per irrigated acre was \$220.96.

The major features of the project include the Owyhee Dam and Reservoir for storage, and extensive main canal, lateral, and drainage systems. The main canal system includes several pumping plants, and also several tunnels and siphons noteworthy for their size and length.

In 1952, the project works were transferred to the water users for operation and maintenance, with the exception of the Owyhee Reservoir and related works, which were operated and maintained by the United States until transferred to the water users November 1, 1954. The water users' irrigation districts are organized into two separate boards of control. The South Board of Control is formed by the Gem and Ridgeview Irrigation Districts. The North Board of Control represents the Slide, Owyhee, Payette-Oregon Slope, Ontario-Nyssa, Bench, Crystal, and Advancement Irrigation Districts.

A rehabilitation and betterment program authorized under the act of October 7, 1949 (63 Stat. 724), was completed for the benefit of the Gem and Ridgeview Irrigation Districts. Work accomplished under this program consisted of replacing pumping unit motor control equipment, construction of an outdoor switchyard, and replacement of insulated power feeder cables, all at the Gem Pumping Plant No. 1, at a cost of \$169,557.

Repayment contracts.—The original contracts with the Advancement, Bench, Crystal, Gem, Kingman Colony, Ontario-Nyssa, Owyhee, Payette-Oregon Slope, and the Slide Irrigation Districts provided for repayment of the construction costs in 39 annual installments. Warren Act contracts have also been entered into with the Owyhee Ditch Co. for purchase of 21,000 acre-feet of storage capacity in the Owyhee Reservoir at a price of \$300,000, payable in 30 annual installments and for payment of 18 percent of cost of constructing the Owyhee ditch pumping plant. The Owyhee Ditch Co. completed payment of the \$300,000 storage obligation on November 14, 1968. The construction obligation to be repaid by the water users totals \$19,826,659. Of this amount, \$326,659 is covered under separate contracts with the Owyhee Ditch Co. The amendatory repayment contract for \$19,500,000, dated August 29, 1951, supersedes all other contracts with exception of those with Owyhee Ditch Co. This contract did not become effective until October 1952; however, approval by the Congress was made on June 23, 1952, under Public Law 402, 82d Congress, 2d session. This contract provides for a base annual installment of \$2.10 per acre, subject to increase or decrease contingent upon pumping power charges, with application of the normal and percentage plan plus parity provisions optional. In 1964, the pumping power charge was reduced from 3 mills to 2.35 mills per kilowatt-hour, resulting in an increase in the annual construction charges from \$2.10 to \$2.25 per acre.

Rehabilitation and betterment contract 14-06-100-2448, dated May 29, 1962, covered the cost of all electrical control work at Gem Pumping Plant No. 1. Actual costs in the amount of \$169,557 were allocated \$143,132 to the Gem Irrigation District and \$26,425 to the Ridgeview Irrigation District.

Summary of status of repayment contracts:

Total value of contracted repayment \$19,996,216

Total matured charges	5,213,358
Total matured charges repaid	5,213,358
Total matured charges unpaid	0

Allocation of cost and repayment:

Cost:

Irrigation plant	\$19,558,648
Property transfers funded	198,247
Deferred maintenance funded	18,931
Subtotal, construction cost	19,775,826
Other charges—O&M deficit funded	297,085
Total	20,072,911

Repayment:

By water users	19,996,216
Contributions—State of Oregon	4,355
Other income:	
Water rental—class 4W lands	234,953
Sale and rental of land and buildings ..	46,219
Miscellaneous	34,928
Total repayment	20,316,671
Surplus	243,760

CONTRACTS AND PUBLIC NOTICES

- 1926, October 14: Contract IIR-61 with Gem Irrigation District to cover construction costs.
- 1926, October 14: Contract IIR-60 with Slide Irrigation District to cover construction costs.
- 1926, October 14: Contract IIR-59 with Owyhee Irrigation District for repayment of construction costs.
- 1926, October 14: Contract IIR-58 with Payette-Oregon Slope Irrigation District for repayment of construction costs.
- 1927, February 5: Contract IIR-153 with Ontario-Nyssa Irrigation District to cover construction costs.
- 1928, August 3: Contract IIR-356 with Owyhee Ditch Co. for

purchase of 21,000 acre-feet of storage in Owyhee Reservoir.

- 1929, January 14: Contract with Kingman Colony Irrigation District to cover construction costs.
- 1931, October 5: Contract IIR-675 with Bench Irrigation District to cover construction costs.
- 1931, November 28: Contract IIR-678 with Crystal Irrigation District to cover construction costs.
- 1935, August 28: Contract IIR-809 with Owyhee Ditch Co. to cover 18 percent of cost of Owyhee ditch pumping plant, repayable in 40 annual installments. Irrigable acreage on date of contract was approximately 10,000 acres.
- 1936, September 1: Contract IIR-882 with Advancement Irrigation District for repayment of construction costs.
- 1951, August 29: Amendatory repayment contract IIR-876 supersedes all above contracts with exception of those with Owyhee Ditch Co. Kingman Colony Irrigation District combined with Owyhee Irrigation District. Owyhee Irrigation District lands under South Main Canal comprise the newly formed Ridgeview Irrigation District, which is party to the amendatory contract. Contract calls for a base annual charge of \$207,354. (98,740 acres at \$2.10 subject to adjustment for power cost variations), commencing in 1953, to be completed in 88 years. Application of normal and percentage plan optional. Installments due April 15 and June 30. Excluding Owyhee Ditch Co., the total irrigated area of all the districts consisted of 98,740 acres basically irrigable and 4,982 acres temporarily irrigable on the date of contract.
- 1962, May 29: Contract 14-06-100-2448 with the Owyhee Project South Board of Control, the Gem Irrigation District, and the Ridgeview Irrigation District covering a maximum \$260,000 rehabilitation and betterment program. Repayment will be made in 14 years beginning in 1966. Installments due April 15 and June 30.
- 1965, June 8: Notices issued to the Districts under contract 14-06-100-2448, dated May 29, 1962, established final R&B costs at \$169,557.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1940-----	\$18,145,605	\$10,000	-----	\$10,000	\$10,000	-----	\$10,000	\$10,000
1941-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	20,000
1942-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	30,000
1943-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	40,000
1944-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	50,000
1945-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	60,000
1946-----	18,145,605	10,000	-----	10,000	10,000	-----	10,000	70,000
1947-----	18,145,605	112,385	-----	112,385	111,163	-----	111,163	181,163
1948-----	18,145,605	214,770	-----	214,770	212,307	-----	212,307	393,470
1949-----	18,145,605	214,770	-----	214,770	212,288	-----	212,288	605,758
1950-----	18,145,605	214,770	-----	214,770	212,288	-----	212,288	818,046
1951-----	18,145,605	419,540	-----	419,540	217,854	-----	217,854	1,035,900
1952-----	18,145,605	216,396	-----	216,396	307,117	-----	307,117	1,343,017
1953-----	19,826,659	236,949	¹ - \$96,256	140,693	201,089	-----	201,089	1,544,106
1954-----	19,826,659	228,483	-----	228,483	234,559	-----	234,559	1,778,665
1955-----	19,826,659	228,482	-----	228,482	276,720	-----	276,720	2,055,385
1956-----	19,826,659	228,483	-----	228,483	226,060	-----	226,060	2,281,445
1957-----	19,826,659	228,483	-----	228,483	232,213	-----	232,213	2,513,658
1958-----	19,826,659	228,483	-----	228,483	169,350	\$3,597	172,947	2,686,605
1959-----	19,826,659	218,021	² - 83,698	134,323	82,513	59,133	141,646	2,828,251
1960-----	19,826,659	218,020	-----	218,020	158,888	51,809	210,697	3,038,948
1961-----	19,826,659	218,021	-----	218,021	165,010	59,133	224,143	3,263,091
1962-----	20,086,659	218,021	-----	218,021	218,021	53,010	271,031	3,534,122
1963-----	20,086,659	218,020	-----	218,020	166,212	-----	166,212	3,700,334
1964-----	20,086,659	218,020	-----	218,020	211,897	51,809	263,706	3,964,040
1965-----	19,996,216	232,831	-----	232,831	232,831	6,123	238,954	4,202,994
1966-----	19,996,216	252,591	-----	252,591	197,081	-----	197,081	4,400,075
1967-----	19,996,216	252,591	-----	252,591	252,591	55,510	308,101	4,708,176
1968-----	19,996,216	252,591	-----	252,591	252,591	-----	252,591	4,960,767
1969-----	19,996,216	252,591	-----	252,591	252,591	-----	252,591	5,213,358
Total -----	-----	5,393,312	- 179,954	5,213,358	4,873,234	340,124	5,213,358	-----

¹ Prior years accruals adjusted by provisions of new contract.² Payments from class 4W land cancelled as contract accruals and recorded as revenues.OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1935-----	\$250	\$250
1936-----	250	250
1937-----	30,318	30,318
1938-----	20,052	20,052
1939-----	¹ 5,382	¹ 5,382
1940-----	¹ 2,571	¹ 2,571
1941-----	367	367
1942-----	319	319
1943-----	308	308
1944-----	477	477
1945-----	484	484
1946-----	135,425	160,286
1947-----	330,301	331,093
1948-----	304,497	291,364
1949-----	321,985	353,685
1950-----	344,506	424,535
1951-----	560,749	299,981
1952-----	523	137,042
1953-----	154,069	154,069
1954-----	25,653	25,653
1955-----	² 6,197	² 6,197
Total -----	2,216,383	2,216,383

¹ Decrease. Operation and maintenance accruals and collections cancelled and applied to water rentals.² Decrease.

PACIFIC NORTHWEST-PACIFIC SOUTHWEST INTERTIE

ARIZONA-CALIFORNIA-NEVADA-OREGON

The Pacific Northwest-Pacific Southwest Intertie was authorized by the act of August 14, 1964 (78 Stat. 756). The Intertie, when completed, will interconnect directly or indirectly major Federal, public, and private electrical systems in Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. It will benefit residents in 11 States, as well as investor-owned utilities, rural electric cooperatives, municipal systems, and other public agencies—about 250 systems in all. The Intertie is designed to transmit 4,700 megawatts of power.

The Intertie comprises four major extra high-voltage lines, related terminal facilities, and several supporting lines. Two of the major lines will be 750-kilovolt d-c lines. One is being constructed by the City of Los Angeles Department of Water and Power, and the other (the construction is presently deferred) will be built by the Bureau of Reclamation. The other two major lines, rated 500 kilovolt, have been completed. Supporting lines of two shorter 500-kilovolt tielines, a 345-kilovolt line, and two 230-kilovolt lines have also been completed.

The Intertie will permit surplus Northwest secondary power to be sold in the Southwest and make possible exchanges of Northwest summertime surplus-peaking capacity for Southwest energy, with resultant substantial savings in powerplant investments in both regions. In addition, it will allow surplus Canadian Treaty power to be sold in the Southwest.

The Oregon portion is being constructed by the Bonneville Power Administration. The Bureau of Reclamation section was initiated as a feature of the Central Valley project, with funds appropriated in the

Public Works Appropriation Act of December 31, 1963 (77 Stat. 848), subject to committee restriction as to the enactment of authorizing legislation before construction.

The total estimated project cost to the Bureau of Reclamation, Regions 2 and 3, including interest during construction, is expected to be \$169,468,847. Costs through June 30, 1969, totaled \$68,729,862. Costs are to be repaid within a period of 50 years from the sale of capacity in the transmission facilities of the project.

Cost and repayment summary:

Cost:	Total
Electric plant	\$44,594,893
Interest during construction	1,259,273
Construction work in progress	22,875,696
Estimated cost to complete	100,738,985
Total to be allocated	169,468,847
Repayment and other credits:	
Contributions	350,343
Power revenues—anticipated	169,118,504
Total repayment	169,468,847

CONTRACTS

- 1967, July 31: Contract 14-06-200-2974A with California companies for extra high-voltage transmission and exchange service. California companies are Pacific Gas and Electric Co., Southern California Edison Co., and San Diego Gas and Electric Co.
- 1967, July 31: Contract 14-06-200-2948A with Pacific Gas and Electric Co. for sale, exchange, and transmission of electric capacity and energy.
- 1968, March 11: Contract 14-06-300-2002 with Salt River Project Agricultural Improvement and Power District for interconnections at Mead substation and for use of capacity in the Mead-Liberty transmission facilities.

PALISADES PROJECT

IDAHO-WYOMING

The Palisades project was initially authorized by the Secretary of the Interior on December 9, 1941. Construction was delayed because of World War II and the necessity of reaching water-savings agreements between the Bureau of Reclamation and the farmers in the Upper Snake River valley. In 1949, the original plan of development was changed by increasing the power capacity, enlarging the outlet works, and adding recreation features. Congress reauthorized the Palisades project by act of September 30, 1950 (64 Stat. 1083).

The Palisades project is designed to provide supplemental irrigation water for 650,000 acres of land in the Upper Snake River Valley. The 114,000-kilowatt powerplant serves irrigation pumping, municipal, cooperative, and private loads. Direct flood protection is provided for land located on the Snake River Plain above American Falls Reservoir. The project works include the dam and reservoir, powerplant, and transmission lines.

The total cost of the Palisades project as of June 30, 1969, is \$62,613,978, which includes \$2,530,940 cost of transmission facilities transferred to Bonneville Power Administration. The project costs allocated to irrigation and power are reimbursable. After payout of Palisades project costs, net power revenues are applied to irrigation costs on the Michaud Flats project and the Michaud division of the Fort Hall Indian Reservation, amounting to \$4,453,100, in accordance with the provisions of Public Law 741, 83rd Congress, 2nd session, approved August 31, 1954.

Cost and repayment allocation:

Cost:	
Palisades Dam and Reservoir	\$44,560,474
Palisades Powerplant	13,137,057
Palisades Switchyard	1,294,942
Other features	1,090,565
Subtotal, plant, property, and equipment ...	60,083,038
Lines transferred to BPA	2,530,940
Total construction cost	62,613,978

Other charges:

Repay obligation assumed for Michaud Flats and Michaud Flats division of Fort Hall Indian Reservation	4,453,100
Total	67,067,078

Reimbursable:

Irrigation (Palisades project)	\$25,813,641
Irrigation (costs assumed by other projects)	1,020,675
Power	10,648,307
BPA—Depreciation on lines transferred ..	2,530,940

Subtotal, reimbursable	40,013,563
Reimbursable costs of facilities of other projects	4,453,100

Repayment:

Repayment contracts	\$8,279,325
Power revenues	32,336,222
Contributions	3,462
Depreciation—Lines transferred B.P.A.	2,530,940
Depreciation	296,039

Subtotal	43,445,988
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Repayment—Obligations transferred:

Michaud Flats project	316,975
Minidoka project	703,700

Subtotal	44,466,663
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Other credits:

Nonreimbursable:	
Flood control	22,456,000
Recreation	144,415

Total, repayments and other credits ..	67,067,078
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Power and energy in excess of that required for irrigation pumping and incidental uses are delivered to Bonneville Power Administration for marketing.

Repayment contracts.—On June 30, 1969, the Bureau of Reclamation had negotiated repayment contracts with 54 irrigation districts and canal companies and the Bureau of Indian Affairs for repayment of the costs allocated for repayment by irrigation water users. These contracts cover 1,147,520 acre-feet of storage space. Additional contracts will be negotiated for the remain-

ing 52,480 acre-feet of space to be sold to cover the full \$9,300,000 allocated for repayment by water users.

CONTRACTS

(All payable in 40 years on a fixed installment basis unless otherwise indicated.)

1952, October 22: Contract 14-06-W-24 for \$1,184,200 with Aberdeen-Springfield Canal Co.
 1952, December 12: Contract 14-06-W-39 for \$31,387.50 with Blackfoot Irrigation Co.
 1952, December 12: Contract 14-06-W-21 for \$1,937.50 with Butler Island Canal Co., Ltd.
 1952, December 12: Contract 14-06-W-38 for \$341,000 with Butte & Market Lake Canal Co.
 1952, December 12: Contract 14-06-W-20 for \$6,200 with Clark & Edwards Canal or Irrigating Co.
 1952, December 12: Contract 14-06-W-12 for \$48,825 with Corbett Slough Ditch Co.
 1952, December 12: Contract 14-06-W-40 for \$18,212.50 with Danskin Ditch Co.
 1952, December 12: Contract 14-06-W-32 for \$9,300 with Dilts Irrigation Co.
 1952, December 12: Contract 14-06-W-15 for \$151,900 with Enterprise Canal Co., Ltd.
 1952, December 12: Contract 14-06-W-11 for \$72,850 with Farmers Friend Irrigation Co., Ltd.
 1952, December 12: Contract 14-06-W-30 for \$182,125 with Harrison Canal & Irrigation Co.
 1952, December 12: Contract 14-06-W-33 for \$455,700 with Idaho Irrigation District.
 1952, December 12: Contract 14-06-W-29 for \$36,425 with Island Irrigation Co.
 1952, December 12: Contract 14-06-W-16 for \$6,200 with Labelle Irrigating Co.
 1952, December 12: Contract 14-06-W-22 for \$60,837.50 with Lenroot Canal Co.
 1952, December 12: Contract 14-06-W-19 for \$18,212.50 with Liberty Park Irrigation Co.
 1952, December 12: Contract 14-06-W-34 for \$12,400 with Lowder Slough Canal Co., Ltd.
 1952, December 12: Contract 14-06-W-36 for \$43,400 with Martin Canal Co.
 1952, December 12: Contract 14-06-W-17 for \$91,062.50 with New Lava Side Ditch Co.
 1952, December 12: Contract 14-06-W-14 for \$243,350 with New Sweden Irrigation District.
 1952, December 12: Contract 14-06-W-43 for \$9,300 with North Rigby Irrigation & Canal Co.
 1952, December 12: Contract 14-06-W-28 for \$775,000 with North Side Canal Co.
 1952, December 12: Contract 14-06-W-18 for \$42,625 with Parks & Lewisville Canal Irrigation Co.
 1952, December 12: Contract 14-06-W-10 for \$24,412.50 with Reid Canal Co.
 1952, December 12: Contract 14-06-W-26 for \$48,825 with Rigby Canal & Irrigating Co.
 1952, December 12: Contract 14-06-W-25 for \$9,300 with Riverside Ditch Co.
 1952, December 12: Contract 14-06-W-37 for \$121,675 with Rudy Irrigation Canal Co.

1952, December 12: Contract 14-06-W-31 for \$30,225 with Shattuck Irrigation Co.
 1952, December 12: Contract 14-06-W-35 for \$273,575 with Snake River Valley Irrigation District.
 1952, December 12: Contract 14-06-W-42 for \$48,825 with Sunnydell Irrigation District.
 1952, December 12: Contract 14-06-W-27 for \$18,212.50 with Texas Slough Irrigating Canal Co.
 1952, December 12: Contract 14-06-W-23 for \$24,800 with Trego Ditch Co.
 1952, December 12: Contract 14-06-W-13 for \$18,212.50 with West Side Mutual Canal Co.
 1952, December 18: Contract 14-06-W-41 for \$243,350 with Burgess Canal & Irrigating Co.
 1952, December 18: Contract 14-06-W-48 for \$303,800 with Burley Irrigation District.
 1952, December 18: Contract 14-06-W-44 for \$243,350 with Peoples Canal & Irrigation Co.
 1952, December 18: Contract 14-06-W-45 for \$12,012.50 with Poplar Irrigation District.
 1952, December 18: Contract 14-06-W-47 for \$220,875 with Progressive Irrigation District.
 1952, December 18: Contract 14-06-W-46 for \$18,212.50 with Watson Slough Ditch Co., Ltd., and Watson Slough Irrigation Co.
 1952, December 18: Contract 14-06-W-50 for \$4,650 with Wearyrick Ditch Co.
 1952, December 18: Contract 14-06-W-49 for \$46,500 with Woodville Canal Co.,
 1955, January 7: Contract 14-06-W-92 for \$213,125 with Milner Low Lift Irrigation District.
 1957, April 25: Memorandum of agreement in amount of \$650,225 with Bureau of Indian Affairs. Repayment to be made on a nonappropriation cost transfer basis.
 1960, January 19: Contract 14-06-100-1828 for \$38,750 with Long Island Irrigation Co.
 1960, February 2: Contract 14-06-100-1836 for \$38,750 with Food Machinery and Chemical Corp., Westvaco Mineral Products Division.
 1960, February 2: Contract 14-06-100-1833 for \$271,250 with Minidoka Irrigation District.
 1960, February 12: Contract 14-06-100-1838 for \$19,375 with J. R. Simplot Co.
 1960, February 17: Contract 14-06-100-1840 for \$5,425 with Parsons Ditch Co.
 1960, February 29: Supplemental and amendatory contract 14-06-W-28 for an additional \$128,650 with North Side Canal Co.
 1960, April 4: Contract 14-06-100-1881 for \$385,407.50 with Palisades Water Users, Inc.
 1960, April 8: Contract 14-06-100-1825 for \$387,500 with City of Pocatello.
 1960, June 22: Contract 14-06-100-1926, for \$11,160 with Craig-Mattson Canal Co.
 1961, May 31: Contract 14-06-100-2176 for \$7,750 with West Labelle Irrigation Co., Ltd.
 1963, January 31: Amendatory and supplemental contract 14-06-W-25 for an additional \$2,325 with Riverside Ditch Co.

1963, January 31: Amendatory and supplemental contract 14-06-W-44 for an additional \$27,900 with Peoples Canal and Irrigating Co.

1966, January 21: Amendatory and supplemental contract 14-06-100-5395 for an additional \$131,750 with Milner Low Lift Irrigation District.

Summary of status of repayment contracts:

Total value of contracted repayment	\$7,872,605
Total matured charges	2,094,924
Total matured charges repaid	2,094,924
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—WATER USERS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1958-----	\$7,301,675							
1959-----	7,301,675							
1960-----	8,795,405	¹ \$650,225		\$650,225	\$650,225		\$650,225	\$650,225
1961-----	8,795,405							650,225
1962-----	8,795,405	175,958		175,958	175,958		175,958	826,183
1963-----	8,798,105	182,061		182,061	182,061		182,061	1,008,244
1964-----	8,875,505	178,993		178,993	178,993		178,993	1,187,237
1965-----	7,740,855	177,893		177,893	177,438		177,438	1,364,675
1966-----	7,872,605	185,234		185,234	185,234	\$455	185,689	1,550,364
1967-----	7,872,605	182,130		182,130	177,686		177,686	1,728,050
1968-----	7,872,605	181,520		181,520	181,220	4,444	185,664	1,913,714
1969-----	7,872,605	180,910		180,910	180,910	300	181,210	2,094,924
Total -----		2,094,924		2,094,924	2,089,725	5,199	2,094,924	

¹ Nonappropriation transfer of total contract costs for Bureau of Indian Affairs, Michaud Flats, Idaho.

Payout schedule.—All construction installments on contracts payable on a 40-year fixed installment basis are due December 31, except Milner Low Lift Irrigation District. Its payments are due one-half on December 31 and one-half on the following June 30.

Power revenues will be used to repay the power allocation and to provide interest-free aid to irrigation, (estimated at \$10,544,794 and \$21,815,594, respectively, in the Payout Study).

PAYOUT STUDY—PALISADES PROJECT

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES					IRRIGATION REVENUES			RECAPITULATION			
	Net revenues	Repayment components of revenues		Interest bearing commercial electric plant		Interest free aid to irrigation		Net revenues from water users	Interest free irrigation obligation		Net project revenues	Cumulative earned surplus
		Interest, 3 percent	Principal	In service end of year	Balance to be repaid	Required aid ¹	Balance to be repaid		Total obligation ²	Balance to be repaid		
1957-----	\$224,486	0	\$224,486	\$6,444,543	\$6,220,057	\$8,823,545	\$8,823,545	0	0	0	\$224,486	0
1958-----	998,681	\$186,602	812,079	12,851,462	11,814,897	17,782,760	17,782,760	0	\$7,301,675	\$7,301,675	998,681	0
1959-----	1,167,324	354,447	812,877	12,099,264	10,249,822	17,959,330	17,959,330	0	7,301,675	7,301,675	1,167,324	0
1960-----	1,034,039	307,495	726,544	11,795,881	9,219,895	18,228,721	18,228,721	\$650,225	8,795,405	8,145,180	1,684,264	0
1961-----	1,002,447	276,597	725,850	11,874,232	8,572,392	18,248,423	18,248,423	0	8,795,405	8,145,180	1,002,447	0
1962-----	927,332	257,172	670,160	11,885,884	7,913,888	18,263,200	18,263,200	175,958	8,795,405	7,969,222	1,103,290	0
1963-----	1,583,131	220,528	1,362,603	11,931,691	6,597,092	18,334,139	18,334,139	182,061	8,798,105	7,789,861	1,765,192	0
1964-----	149,839	197,913	(48,074)	10,484,966	5,198,441	17,370,094	17,370,094	178,991	8,875,505	7,688,267	328,833	0
1965-----	320,387	155,953	164,434	10,474,453	5,023,494	17,369,298	17,369,298	177,891	7,740,855	6,375,726	498,278	0
1966-----	1,445,508	150,705	1,294,803	10,467,172	3,721,410	17,337,533	17,337,533	185,235	7,872,605	6,322,241	1,630,743	0
1967-----	1,316,880	91,510	1,225,370	10,472,859	2,501,727	17,280,383	17,280,383	182,130	7,872,605	6,140,111	1,499,010	0
1968-----	172,446	75,052	97,394	10,402,310	2,333,784	17,289,834	17,289,834	181,520	7,872,605	5,958,591	353,966	0
1969-----	1,702,263	70,014	1,632,249	10,534,626	833,851	21,334,048	21,334,048	181,520	7,872,605	5,777,071	1,883,783	0
Adjustments as per ARS	(66,236)	(66,236)	0								(66,236)	0
Subtotal	11,978,527	2,277,752	9,700,775	10,534,626	833,851	21,334,048	21,334,048	2,095,534	7,872,605	5,777,071	14,074,061	0
1970-----	363,800	25,016	338,784	10,544,794	505,235	21,815,594	21,815,594	180,910	7,872,605	5,596,161	544,710	0
1971-----	54,800	15,157	39,643	10,544,794	465,592	21,815,594	21,815,594	180,910	7,872,605	5,415,251	235,710	0
1972-----	21,004	13,968	7,036	10,544,794	458,556	21,815,594	21,815,594	191,078	8,279,325	5,630,893	212,082	0
1973-----	21,004	13,757	7,247	10,544,794	451,309	21,815,594	21,815,594	191,078	8,279,325	5,439,815	212,082	0
1974-----	21,004	13,539	7,465	10,544,794	443,844	21,815,594	21,815,594	191,078	8,279,325	5,248,737	212,082	0
1975-----	21,004	13,315	7,689	10,544,794	436,155	21,815,594	21,815,594	191,078	8,279,325	5,057,659	212,082	0
1976-----	21,004	13,085	7,919	10,544,794	428,236	21,815,594	21,815,594	191,078	8,279,325	4,866,581	212,082	0
1977-----	21,004	12,847	8,157	10,544,794	420,079	21,815,594	21,815,594	191,078	8,279,325	4,675,503	212,082	0
1978-----	21,004	12,602	8,402	10,544,794	411,577	21,815,594	21,815,594	191,078	8,279,325	4,484,425	212,082	0
1979-----	21,004	12,350	8,654	10,544,794	403,023	21,815,594	21,815,594	191,078	8,279,325	4,293,347	212,082	0
1980-----	21,004	12,091	8,913	10,544,794	394,110	21,815,594	21,815,594	191,079	8,279,325	4,102,268	212,083	0
1981-----	21,004	11,823	9,181	10,544,794	384,929	21,815,594	21,815,594	190,467	8,279,325	3,911,801	211,471	0
1982-----	21,004	11,548	9,456	10,544,794	375,473	21,815,594	21,815,594	190,467	8,279,325	3,721,334	211,471	0
1983-----	21,004	11,264	9,740	10,544,794	365,733	21,815,594	21,815,594	190,467	8,279,325	3,530,867	211,471	0
1984-----	21,004	10,972	10,032	10,544,794	355,701	21,815,594	21,815,594	190,467	8,279,325	3,340,400	211,471	0
1985-----	21,004	10,671	10,333	10,544,794	345,368	21,815,594	21,815,594	190,467	8,279,325	3,149,933	211,471	0
1986-----	21,004	10,361	10,643	10,544,794	334,725	21,815,594	21,815,594	190,467	8,279,325	2,959,466	211,471	0
1987-----	21,004	10,042	10,962	10,544,794	323,763	21,815,594	21,815,594	190,467	8,279,325	2,768,999	211,471	0
1988-----	21,004	9,713	11,291	10,544,794	312,472	21,815,594	21,815,594	190,467	8,279,325	2,578,532	211,471	0
1989-----	21,004	9,374	11,630	10,544,794	300,842	21,815,594	21,815,594	190,467	8,279,325	2,388,065	211,471	0
1990-----	21,004	9,025	11,979	10,544,794	288,863	21,815,594	21,815,594	190,467	8,279,325	2,197,598	211,471	0
1991-----	21,004	8,666	12,338	10,544,794	276,525	21,815,594	21,815,594	190,467	8,279,325	2,007,131	211,471	0
1992-----	21,004	8,296	12,708	10,544,794	263,817	21,815,594	21,815,594	190,467	8,279,325	1,816,664	211,471	0
1993-----	21,004	7,915	13,089	10,544,794	250,728	21,815,594	21,815,594	190,467	8,279,325	1,626,197	211,471	0
1994-----	21,004	7,522	13,482	10,544,794	237,246	21,815,594	21,815,594	190,467	8,279,325	1,435,730	211,471	0
1995-----	21,004	7,117	13,887	10,544,794	223,359	21,815,594	21,815,594	190,167	8,279,325	1,245,263	211,471	0
1996-----	21,004	6,701	14,303	10,544,794	209,056	21,815,594	21,815,594	190,467	8,279,325	1,054,796	211,471	0
1997-----	21,004	6,272	14,732	10,544,794	194,324	21,815,594	21,815,594	190,467	8,279,325	864,329	211,471	0
1998-----	21,004	5,830	15,174	10,544,794	179,150	21,815,594	21,815,594	190,467	8,279,325	673,862	211,471	0

1999	21,004	5,375	15,629	10,544,794	163,521	21,815,594	21,815,594	190,467	8,279,325	483,395	211,471	0
2000	21,004	4,906	16,098	10,544,794	147,423	21,815,594	21,815,594	190,467	8,279,325	292,928	211,471	0
2001	17,383,498	4,423	17,379,075	10,544,794	130,842	21,815,594	4,453,100	190,467	8,279,325	102,461	17,573,965	0
2002	21,004	3,925	17,079	10,544,794	113,763	21,815,594	4,453,100	10,363	8,279,325	92,098	31,367	0
2003	21,004	3,413	17,591	10,544,794	96,172	21,815,594	4,453,100	10,363	8,279,325	81,735	31,367	0
2004	21,004	2,885	18,119	10,544,794	78,053	21,815,594	4,453,100	10,363	8,279,325	71,372	31,367	0
2005	21,004	2,342	18,662	10,544,794	59,391	21,815,594	4,453,100	10,363	8,279,325	61,009	31,367	0
2006	21,004	1,782	19,222	10,544,794	40,169	21,815,594	4,453,100	10,168	8,279,325	50,841	31,172	0
2007	21,004	1,205	19,799	10,544,794	20,370	21,815,594	4,453,100	10,168	8,279,325	40,673	31,172	0
2008	20,981	611	20,370	10,544,794	0	21,815,594	4,453,100	10,168	8,279,325	30,505	31,149	0
2009	0	0	0	10,544,794	0	21,815,594	4,453,100	10,168	8,279,325	20,337	10,168	0
2010	0	0	0	10,544,794	0	21,815,594	4,453,100	10,168	8,279,325	10,169	10,168	0
2011	0	0	0	10,544,794	0	21,815,594	4,453,100	10,169	8,279,325	0	10,169	0
2012	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2013	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2014	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2015	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2016	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2017	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2018	0	0	0	10,544,794	0	21,815,594	4,453,100	0	8,279,325	0	0	0
2019	4,453,100	0	4,453,100	10,544,794	0	21,815,594	0	0	8,279,325	0	4,453,100	0
Total	34,989,846	2,629,458	32,360,388	10,544,794	0	21,815,594	0	8,279,325	8,279,325	0	43,269,171	0

¹ Irrigation assistance includes \$17,362,494 for Palisades project and \$4,453,100 for Michaud Flats project and Michaud division of the Fort Hall Indian Reservation (Public Law 741, 83rd Congress, 2d session).
² Excludes storage obligation \$703,700 for Minidoka, North Side Pump division and \$316,975 for Falls Irrigation District, Michaud Flat project. These storage obligations are reflected on the respective projects.

PALO VERDE DIVERSION PROJECT

ARIZONA-CALIFORNIA

The construction of the Palo Verde Diversion project, located in Yuma County, Arizona, and Riverside County, California, was authorized by the act of August 31, 1954 (68 Stat. 1045).

The purpose of the project was to reestablish for the Palo Verde Irrigation District a means of diverting its irrigation water supply from the Colorado River into its system which provided water to irrigate approximately 88,000 acres in 1969, to provide protection for the lands of the Colorado River Indian Reservation against Colorado River floods, and to provide a means of draining the Reservation lands. The act also authorized a loan of not to exceed \$500,000 to the District for the modification of its existing works to accommodate them to the new diversion structures.

Project features include an earth and rockfill dam across the river near the District's former intake, together with gated reinforced concrete spillway, intake works, a system of levees, and an intercepting drain. The former rock weir across the river was removed to the extent its effect was nullified.

The total cost of the project is \$4,912,186. All project costs are nonreimbursable under the authorizing legislation, except \$1,175,000 of the construction costs and \$500,000 loaned to the District for modification of its works. Expenditures from the Colorado River Development Fund financed \$26,198. The nonreimbursable costs include flood control diversion levees costing \$885,791. A contract has been executed with the District for repayment of the reimbursable costs over a period of 50 years.

Upon completion of construction, the District assumed operation and maintenance of the dam, spillway, intake, and appurtenant works. Upon repayment by the District of the reimbursable costs in full, title to these works and the lands upon which they are constructed will pass to the District.

An agreement between the Commissioners of Indian Affairs and Reclamation, approved by the Secretary, provided that after the levees and drain were completed, their operation and maintenance would be the responsibility of the Bureau of Indian Affairs.

STATEMENT OF COST AND REPAYMENT

	Total	Irrigation	Flood control
Palo Verde Diversion Dam-----	\$3,145,296	\$3,145,296	-----
Palo Verde diversion drains-----	381,099	381,099	-----
Palo Verde diversion levees-----	885,791	-----	\$885,791
Plant, property, and equipment-----	4,412,186	3,526,395	885,791
Loan to Palo Verde Irrigation District-----	500,000	500,000	-----
Total cost-----	4,912,186	4,026,395	885,791
Repayment and other credits:			
Colorado River Development Fund-----	26,198	26,198	-----
Repayment contracts-----	1,675,000	1,675,000	-----
Subtotal, Repayments-----	1,701,198	1,701,198	-----
Nonreimbursable-----	3,210,988	2,325,197	885,791
Total repayments and other credits-----	4,912,186	4,026,395	885,791

Summary of status of repayment contract:

Total value of contracted repayment	\$1,675,000
Total matured charges	395,250
Total matured charges repaid	395,250
Total matured charges unpaid	0

CONTRACT

1955, October 7: Contract 14-06-W-94 with Palo Verde Irrigation District for \$1,675,000, repayable in 50 years beginning in 1957.

Payout schedule.—The repayment contract calls for equal semiannual payments of \$11,750 for construction costs and \$5,000 for the loan for 50 years. Dam and appurtenant works were substantially completed in 1957 and the first semiannual repayment installment was due in January 1958. Advance of loan funds to the District was made in 1956 and the first semiannual repayment installment was due in January 1957.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1958-----	\$1,175,000	\$11,750	-----	\$11,750	\$11,750	-----	\$11,750	\$11,750
1959-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	35,250
1960-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	58,750
1961-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	82,250
1962-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	105,750
1963-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	129,250
1964-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	152,750
1965-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	176,250
1966-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	199,750
1967-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	223,250
1968-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	246,750
1969-----	1,175,000	23,500	-----	23,500	23,500	-----	23,500	270,250
Total-----	-----	270,250	-----	270,500	270,250	-----	270,250	-----

LOAN REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1957-----	\$500,000	\$5,000	-----	\$5,000	\$5,000	-----	\$5,000	\$5,000
1958-----	500,000	10,000	-----	10,000	10,000	-----	10,000	15,000
1959-----	500,000	10,000	-----	10,000	10,000	-----	10,000	25,000
1960-----	500,000	10,000	-----	10,000	10,000	-----	10,000	35,000
1961-----	500,000	10,000	-----	10,000	10,000	-----	10,000	45,000
1962-----	500,000	10,000	-----	10,000	10,000	-----	10,000	55,000
1963-----	500,000	10,000	-----	10,000	10,000	-----	10,000	65,000
1964-----	500,000	10,000	-----	10,000	10,000	-----	10,000	75,000
1965-----	500,000	10,000	-----	10,000	10,000	-----	10,000	85,000
1966-----	500,000	10,000	-----	10,000	10,000	-----	10,000	95,000
1967-----	500,000	10,000	-----	10,000	10,000	-----	10,000	105,000
1968-----	500,000	10,000	-----	10,000	10,000	-----	10,000	115,000
1969-----	500,000	10,000	-----	10,000	10,000	-----	10,000	125,000
Total-----	-----	125,000	-----	125,000	125,000	-----	125,000	-----

PAONIA PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

Construction of the Paonia project was approved by the President on March 18, 1939. It was reauthorized by act of June 25, 1947 (61 Stat. 181). The act of April 11, 1956 (70 Stat. 105), which authorized the Colorado River Storage project and participating projects, also authorized extending Paonia project. The project is located on the North Fork of the Gunnison River in Gunnison and Delta Counties in west central Colorado and is designed to furnish supplemental water to 13,070 acres of land and full water supply to 2,230 acres. Lands to be served are divided into two areas: Fire Mountain and Leroux Creek. The principal features are the Paonia Dam and Reservoir and the Fire Mountain Canal.

Construction of the project is essentially complete. The estimated cost of the project is \$8,089,518. In addition, costs of other agencies provided for by section 8 of the authorizing act total \$66,900. Of the total cost, \$281,632 is allocated to fish and wildlife, \$56,900 to recreation, and \$171,247 to flood control, all of which are nonreimbursable.

The present irrigable area for service is 15,300 acres, with 11,716 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$1,244,958 and \$106.26, respectively.

The development period commenced January 1, 1962, for the project. Fire Mountain Irrigation Block has a development period of 10 years and the Leroux Creek Irrigation Block has a 10-year development period, during which time the water users are to accomplish certain rehabilitation work on the distribution facilities in each block.

Fire Mountain Canal is operated by the First Mountain Canal and Reservoir Co.; operation and maintenance of the Paonia Dam and Reservoir was transferred

to the North Fork Water Conservancy District June 1, 1962.

Repayment contracts.—The original North Fork contract (11r-1536) was signed on June 11, 1948. The contract provides for repayment of \$2,320,000 in 68 equal annual installments. Repayment plan also includes an optional normal and percentage variable repayment plan. Project costs beyond the irrigation water users ability to pay will be paid from revenues in the Upper Colorado River Basin fund in accordance with the act of April 11, 1956 (70 Stat. 105). Construction repayments are due December 31 each year, commencing with calendar year next succeeding the year of termination of development period.

CONTRACTS

- 1948, June 11: Contract 11r-1536 with North Fork Water Conservancy District. Repay \$2,320,000 in 68 annual installments, to begin after development period of 3 years for Fire Mountain and 10 years for Leroux Creek lands. Includes an optional variable repayment arrangement based on the "normal and percentages plan" of gross value of crops produced.
- 1948, August 9: Contract 11r-1537 with North Fork Water Conservancy District and the Fire Mountain Canal & Reservoir Co. The company grants the United States the right to reconstruct, relocate, enlarge, and extend Fire Mountain Canal, with works to be operated and maintained by the company.
- 1957, August 21: Contract 14-06-400-668. Amendatory contract with North Fork Water Conservancy District. The project could not be completed within the amount authorized under the act of June 25, 1947, and was authorized as a participating project by the act of April 11, 1956, which necessitated certain amendments to the original contract.
- 1964, November 14: Contract 14-06-400-668, second amendatory contract with North Fork Water Conservancy District, reserves all capacity in Paonia Reservoir over 11,000

acre-feet to the United States, increases the development period to 7 years for the Fire Mountain Irrigation Block, and requires the Fire Mountain Canal and Reservoir Co. to make annual assessments that will return \$25,000 to be paid to the District for special canal improvement work. These assessments are in addition to regular operation and maintenance costs.

1968, October 23: Contract 14-06-400-668, third amendatory contract with the North Fork Water Conservancy District to extend the development period to 10 years for the Fire Mountain Irrigation Block, with the requirement that irrigators be assessed in addition to the \$12,500 necessary for regular operation and maintenance to raise \$25,000 annually to be used for canal improvement work.

Status of repayment contract:

Total value of contracted repayment	\$2,320,000
Total matured charges	0

Statement of project cost and repayment:

Paonia Dam and Reservoir	\$5,903,130
Fire Mountain Canal	1,956,338
Diversion Dam and Canal	129,489
Estimated cost to complete	81,727
Subtotal plant, property, and equipment ...	8,070,684
Corollary construction costs:	
Investigations	18,794

Property transfers funded	40
Total cost	8,089,518
Costs of other agencies—section 8	66,900
Total	8,156,418

Allocation:

Reimbursable:	
Irrigation	7,553,487
Highways	93,152
Nonreimbursable:	
Fish and wildlife (includes \$10,000, section 8)	281,632
Recreation—section 8	56,900
Flood control	171,247

Repayments and other credits:

Repayments realized:	
Water users equity	5,450
Costs financed by C.R.D.F.	59,583
Contributions	93,152
Rentals and grazing revenues	24,368
Subtotal repayment realized	182,553
Anticipated future repayment:	
Repayment contracts unmatured	2,320,000
Revenues, Colorado River Storage project	5,144,086
Subtotal anticipated future repayment	7,464,086
Other credits, nonreimbursable	509,779
Total repayment and other credits	8,156,418

PARKER-DAVIS PROJECT

ARIZONA-CALIFORNIA-NEVADA

The Parker Dam Power and Davis Dam projects were authorized and constructed separately. The Parker Dam Power project was authorized under the Rivers and Harbors Act of August 30, 1935 (Public Law 409, 74th Congress, 1st session, 49 Stat. 1028). The Davis Dam project was authorized under the Reclamation Act of 1939 (53 Stat. 1187), when a finding of feasibility was made by the Secretary of the Interior on April 26, 1941. Their consolidation into the Parker-Davis project was authorized by act of May 28, 1954 (68 Stat. 143).

The primary purpose of Parker Dam was to provide a forebay from which the Metropolitan Water District of Southern California could pump water into its Colorado River aqueduct. The dam was constructed with funds advanced by the Metropolitan Water District. Parker Dam Powerplant was later added to provide low-cost electrical energy to Arizona and Southern California. Power generation started on December 13, 1942.

Davis Dam provides regulation of the Colorado River below Hoover Dam for domestic use, irrigation use, and for delivery of water at the United States-Mexico International Boundary as required in article 12(b) of the Mexican Water Treaty of November 8, 1945. The Davis Dam project also provides for production and transmission of electric energy.

The major project works include Davis Dam and Powerplant, Parker Dam and Powerplant, and a high-voltage transmission system with substations which provide for delivery of energy to the customers and sectionalizing of the long transmission lines. Five generating units rated 45,000 kilowatts each are installed at Davis Powerplant and four units of 30,000 kilowatts each are installed at Parker. The transmission system includes 35 substations and approximately 1,545 miles of high voltage transmission lines.

The total estimated construction cost of the Parker-

Davis project is \$152,859,558. Cost adjustments during fiscal year 1969 total \$81,241. The portion of the cost allocated to power excluding contributions and non-reimbursable costs will be repaid from power revenues with interest at 3 percent. In addition, costs allocated to irrigation pumping and to servicing the Mexican Treaty will be repaid from power revenues without interest. Total repayment realized for the power cost allocation as of June 30, 1969, is \$43,965,428 with an additional \$44,261,070 applied to interest.

All project works are operated and maintained by Government forces.

Statement of cost and repayment:

Cost:

Parker Dam division:

Dam and reservoir	\$8,678.49
Powerplant	10,185.97

Davis Dam division:

Dam and reservoir	42,350.70
Powerplant	20,887.94

Transmission division:

Substations	40,553.42
Transmission lines	25,288.12
Communication system	587.16
General plant	1,847.65

Project headquarters office—general plant ...	546.62
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Total construction cost 150,926.10

Cost of facilities of Yuma project 135.97

Total project cost 151,062.08

Cost adjustments to completed features 771.60

Construction work in progress 1,025.86

Net project cost 152,859.55

ALLOCATION AND REPAYMENT OF COSTS

Reimbursable, interest free:

Servicing the Treaty with Mexico \$14,135,000

Irrigation allocation for repayment
from power revenues 11,964,260

Total reimbursable (interest free) 26,099,260

Reimbursable, with interest:		Nonreimbursable:	
All other electric plant investment for		Public Road Administration (Public Law	
repayment from power revenues		562, 79th Congress, 2nd session)	872,395
Contributions:		School facilities—Parker Dam (Public	
Metropolitan Water District contributions		Law 815, 81st Congress)	163,562
toward construction at Parker Dam		Senator Wash Bay—Gila substation	70,079
Highway construction, States of Arizona		Donated Parker building—U.S. Coast Guard..	2,500
and Nevada		Total nonreimbursable	1,108,536
Miscellaneous donations—land, etc.		Total net project cost	152,859,558
Total contributions			
13,323,455			

CONTRACTS FOR SALE OF POWER AS OF JUNE 30, 1969

Contract no.	Contractor	Contract rate of delivery		Date of execution	Date of termination
		Winter	Summer		
		Kilowatts	Kilowatts		
14-06-300-1300--	Edwards Air Force Base-----	12,750	17,000	Dec. 31, 1962	Dec. 31, 1972
14-06-300-1307--	Arizona Electric Power Cooperative-----	14,545	19,390	do	Do.
14-06-300-1311--	Arizona Power Authority-----	2,250	3,000	do	Do.
14-06-300-1295--	Bureau of Indian Affairs for Colorado River Indian Reservation.	2,475	3,300	do	Do.
14-06-300-1294--	Bureau of Indian Affairs for San Carlos project--	12,000	16,000	do	Do.
14-06-300-802--	California Pacific Utilities-----	4,500	6,000	do	Dec. 31, 1977
14-06-300-991--	Citizens Utilities Co. -----	11,250	15,000	do	Do.
14-06-300-1309--	City of Mesa -----	7,180	9,570	do	Dec. 31, 1972
14-06-300-1302--	Colorado River Commission-----	40,250	41,000	Dec. 18, 1962	Do.
14-06-300-1301--	Imperial Irrigation District-----	22,500	30,000	Dec. 31, 1962	Do.
14-06-300-1308--	Mohave Electric Cooperative, Inc. -----	1,885	2,510	do	Dec. 31, 1972
14-06-300-1296--	National Park Service-----	340	450	do	Do.
14-06-300-1297--	Salt River project-----	22,000	42,000	Dec. 18, 1962	Do.
14-06-300-1310--	Town of Thatcher, Ariz. -----	225	305	Dec. 31, 1962	Do.
14-06-300-1299--	Wellton-Mohawk Irrigation and Drainage District.	2,250	3,000	do	Do.
14-06-300-1298--	Yuma Irrigation District-----	1,125	1,500	do	Do.
14-06-W-102--	Yuma-Mesa Irrigation and Drainage District-----	¹		Dec. 22, 1952	Indefinite
14-06-300-1293--	Yuma Proving Ground-----	3,750	5,000	Dec. 31, 1962	Dec. 31, 1972

¹ As required for full development of the Yuma-Mesa division of the Gila project.

PAYOUT STUDY

Fiscal year	INTEREST BEARING COMMERCIAL ELECTRIC PLANT			INTEREST FREE IRRIGATION PLANT			Earned surplus, cumulative
	Total available for repayment	Principal	Balance to be repaid	Total electric plant investment end of year	Required aid	Balance to be repaid	
1942	\$ - 59,567	\$ - 59,567	\$8,082,176	\$8,082,176			
1943	883,136	883,136	8,141,743	8,339,552	\$698,564	\$698,564	
1944	990,649	990,649	7,515,983	8,721,600	700,175	700,175	
1945	770,981	770,981	6,907,382	9,003,685	709,869	709,869	
1946	744,397	744,397	6,418,486	12,548,286	709,063	709,063	
1947	790,378	790,378	9,218,690	14,067,078	1,095,023	1,095,023	
1948	973,811	973,811	9,947,104	14,855,696	1,182,704	1,182,704	
1949	486,086	486,086	12,358,375	17,938,246	1,430,845	1,430,845	
1950	424,971	424,971	84,581,082	90,585,924	11,639,355	11,639,355	
1951	467,116	467,116	86,880,791	93,352,749	22,719,154	22,719,154	
1952	2,317,099	2,317,099	88,892,455	97,681,312	24,190,931	24,190,931	
1953	1,383,198	1,383,198	90,663,818	100,836,073	23,518,730	23,518,730	
1954	1,633,638	1,633,638	90,992,182	102,798,075	23,717,373	23,717,373	
1955	527,406	527,406	92,646,573	104,979,872	22,309,878	22,309,878	
1956	526,585	526,585	91,897,311	104,757,195	22,341,889	22,341,889	
1957	2,088,427	2,088,427	90,107,743	105,056,055	22,266,490	22,266,490	
1958	1,695,696	1,695,696	88,404,931	105,048,939	22,287,422	22,287,422	
1959	1,186,228	1,186,228	87,216,836	105,047,072	22,181,689	22,181,689	
1960	1,026,377	1,026,377	86,585,366	105,441,978	22,179,106	22,179,106	
1961	995,135	995,135	82,129,685	101,981,432	26,033,833	26,033,833	
1962	10,039,245	10,039,245	72,228,806	102,119,798	26,041,951	26,041,951	
1963	2,814,329	2,814,329	69,439,333	102,144,654	26,047,189	26,047,189	
1964	1,972,662	1,972,662	68,533,366	103,213,349	26,043,629	26,043,629	
1965	2,265,012	2,265,012	67,386,571	104,329,566	26,048,428	26,048,428	
1966	2,577,211	2,577,211	65,255,628	104,775,834	26,063,280	26,063,280	
1967	2,090,612	2,090,612	63,720,711	105,331,529	26,082,405	26,082,405	
1968	2,354,610	2,354,610	62,806,051	106,771,479	26,099,266	26,099,266	
1969							
Subtotal	43,965,428	43,965,428	62,806,051	106,771,479	26,099,266	26,099,266	
1970	2,100,285	2,100,285	65,095,412	111,161,125	26,099,266	26,099,266	
1971	1,836,395	1,836,395	63,355,765	111,257,873	26,099,266	26,099,266	
1972	1,774,574	1,774,574	61,581,191	111,257,873	26,099,266	26,099,266	
1973	1,738,579	1,738,579	60,913,040	112,328,301	26,099,266	26,099,266	
1974	1,703,061	1,703,061	59,209,979	112,328,301	26,099,266	26,099,266	
1975	2,772,056	2,772,056	56,437,923	112,328,301	26,099,266	26,099,266	
1976	2,752,754	2,752,754	53,685,169	112,328,301	26,099,266	26,099,266	
1977	1,576,897	1,576,897	52,108,272	112,328,301	26,099,266	26,099,266	
1978	2,594,399	2,594,399	49,513,873	112,328,301	26,099,266	26,099,266	
1979	2,924,786	2,924,786	46,589,087	112,328,301	26,099,266	26,099,266	
1980	3,013,179	3,013,179	43,575,908	112,328,301	26,099,266	26,099,266	
1981	3,510,305	3,510,305	40,065,603	112,328,301	26,099,266	26,099,266	
1982	2,197,879	2,197,879	37,867,724	112,328,301	26,099,266	26,099,266	
1983	2,654,350	2,654,350	35,213,374	112,328,301	26,099,266	26,099,266	
1984	3,777,791	3,777,791	31,435,583	112,328,301	26,099,266	26,099,266	
1985	3,904,495	3,904,495	27,531,088	112,328,301	26,099,266	26,099,266	

1986	-894,346	-894,346	28,425,434	112,328,301	26,099,266
1987	2,661,344	2,661,344	25,764,090	112,328,301	26,099,266
1988	3,198,449	3,198,449	22,565,641	112,328,301	26,099,266
1989	3,029,083	3,029,083	19,536,558	112,328,301	26,099,266
1990	4,061,955	4,061,955	15,474,603	112,328,301	26,099,266
1991	-430,216	-430,216	15,904,819	112,328,301	26,099,266
1992	2,717,612	2,717,612	13,187,207	112,328,301	26,099,266
1993	3,295,436	3,295,436	9,891,771	112,328,301	26,099,266
1994	2,218,169	2,218,169	7,673,602	112,328,301	26,099,266
1995	3,828,344	3,828,344	3,845,258	112,328,301	26,099,266
1996	3,236,074	3,236,074	609,184	112,328,301	26,099,266
1997	3,769,201	609,184	--	112,328,301	26,099,266
1998	4,030,152	--	--	112,328,301	18,909,097
1999	3,911,592	--	--	112,328,301	14,997,505
2000	3,432,762	--	--	112,328,301	11,564,743
2001	1,270,377	--	--	112,328,301	10,294,366
2002	2,148,227	--	--	112,328,301	26,099,266
2003	3,967,902	--	--	112,328,301	8,146,139
2004	3,880,322	--	--	112,328,301	4,178,237
2005	3,244,637	--	--	112,328,301	297,915
2006	3,778,052	--	--	112,328,301	\$2,946,722
2007	3,663,737	--	--	112,328,301	6,724,774
Total	148,816,078	112,328,301	--	112,328,301	10,388,511
					10,388,511

PECOS RIVER BASIN WATER SALVAGE PROJECT

NEW MEXICO-TEXAS

The Pecos River Basin water salvage project, authorized by Public Law 88-594, is located in parts of Mora, San Miguel, Guadalupe, DeBaca, Chaves, and Eddy Counties in New Mexico, and Loving, Ward, Reeves, Crane, and Pecos Counties in Texas. The project provides for the clearing and control of nonbeneficial vegetation (phreatophytes) in the Pecos River Basin from its headwaters in New Mexico to the town of Girvin, Tex., about 70 miles downstream from Pecos, Tex.

The Pecos River Basin water salvage project was authorized by Congress with full knowledge that it would be virtually impossible to identify all of the beneficiaries, determine the degree to which such beneficiaries would be benefited, and thus establish some equitable repayment arrangement.

House Report No. 1572 of the Committee of Interior and Insular Affairs points out, "Therefore, even though this legislation includes the principle of repayment by the beneficiaries in accordance with their ability to repay, it is unlikely that any repayment arrangements will be entered into between the Department of the Interior and water users organizations." The committee concluded that the nature and the magnitude of the salt cedar problem in the Pecos River Basin is such that Federal assistance is warranted to reduce and control consumptive waste of water in the basin, and that the program proposed to be carried out is fully justified and represents a sound investment in the resources of the area affected.

The total estimated cost allocated to nonreimbursable irrigation is \$2,520,000.

PINE RIVER PROJECT

COLORADO

The Pine River project, located in La Plata and Archuleta Counties in southwestern Colorado, was approved for construction by the President June 17, 1937.

The project works consist of Vallecito Dam and Reservoir, which provides supplemental irrigation water for 15,120 irrigable acres of Southern Ute Indian lands and 41,141 irrigable acres of land outside the Indian Reservation.

The total cost of the project is \$3,468,609. A contract was executed with the Pine River Irrigation District and a memorandum of understanding with the Bureau of Indian Affairs for repayment of the reimbursable cost.

The present irrigable area for service is 54,141 acres, with 48,553 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$2,437,329 and \$50.20, respectively.

The features constructed by the United States are being operated by the Bureau of Reclamation with funds advanced by the water users.

Repayment contracts.—The original repayment contract Ilr-1204 was signed by the Pine River Irrigation District April 15, 1940. The contract provided that the District and the Bureau of Indian Affairs would share in repaying reimbursable project costs. By amendatory contract, dated November 30, 1953, the reimbursable cost was established at \$1,500,000, with five-sixths, or \$1,250,000, to be paid by the District and one-sixth, or \$250,000, to be paid by the Bureau of Indian Affairs. Execution of this contract was authorized by Public Law 533, 83d Congress, on July 27, 1954 (68 Stat. 534).

CONTRACTS

1940, January 3: Memorandum of understanding between the Bureau of Reclamation and the Office of Indian Affairs relating to cooperative use and operation of the Vallecito Reservoir. Repayment of one-sixth of the reimbursable construction cost of irrigation features which

may be made in two equal installments if appropriations by Congress permit.

1940, April 15: Contract Ilr-1204 with Pine River Irrigation District for five-sixths of the reimbursable construction cost of irrigation features. Repayment to be made in 38 consecutive annual installments commencing in 1944, the first 10 installments at 1½ percent, the second 10 at 2½ percent, and the next 18 at 3½ percent of the amount payable by the District.

1953, November 30: Amendatory contract Ilr-1204 approved by the act of July 27, 1954 (68 Stat. 534), provides for the District's unpaid repayment obligation to be paid in 30 annual installments with the option of paying under a variable plan based on price indices as described in contract.

Statement of cost and repayment:

Costs:

Vallecito Dam and Reservoir	\$3,468,609
O&M deficit	4,215
Total	<u>3,472,824</u>

Allocation:

Reimbursable—Irrigation	1,520,457
Nonreimbursable—Irrigation	150,857
Flood control	1,797,295

Repayment and other credits:

Repayments realized:

Water users equity	5,463
Repayment contracts matured	754,220
Miscellaneous revenues	19,209

Subtotal repayment realized	778,892
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Anticipated future repayments:

Repayment contracts unmatured	495,780
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Total repayment	<u>1,274,672</u>
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Other credits:

Chargeoff, act of July 27, 1954	150,857
Repayment obligation transferred to Bureau of Indian Affairs	250,000
Nonreimbursable flood control	1,797,295

Total other credits	2,198,152
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Total repayment and other credits	<u>3,472,824</u>
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REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1941	¹ \$2,300,000							
1942	2,300,000							
1943	2,300,000							
1944	² 1,844,460	\$23,056		\$23,056	\$18,750		\$18,750	\$18,750
1945	1,844,460	23,056		23,056	18,750		18,750	37,500
1946	1,844,460	23,056		23,056	18,750		18,750	56,250
1947	1,844,460	23,056		23,056	18,750		18,750	75,000
1948	1,844,460	23,056		23,056	18,750		18,750	93,750
1949	1,844,460	23,056		23,056	18,750		18,750	112,500
1950	1,844,460	23,056		23,056	18,750		18,750	131,250
1951	1,844,460	23,055		23,055	18,750		18,750	150,000
1952	1,844,460	23,055		23,055	18,750		18,750	168,750
1953	1,844,460	18,750		18,750	18,750		18,750	187,500
1954	³ 1,250,000	35,420	⁴ - \$38,752	- 3,332	35,420		35,420	222,920
1955	1,250,000	35,420		35,420	35,420		35,420	258,340
1956	1,250,000	35,420		35,420	35,420		35,420	293,760
1957	1,250,000	35,420		35,420	35,420		35,420	329,180
1958	1,250,000	35,420		35,420	35,420		35,420	364,600
1959	1,250,000	35,420		35,420	35,420		35,420	400,020
1960	1,250,000	35,420		35,420	35,420		35,420	435,440
1961	1,250,000	35,420		35,420	35,420		35,420	470,860
1962	1,250,000	35,420		35,420	35,420		35,420	506,280
1963	1,250,000	35,420		35,420	35,420		35,420	541,700
1964	1,500,000	35,420		35,420	35,420		35,420	577,120
1965	1,500,000	35,420		35,420	35,420		35,420	612,540
1966	1,500,000	35,420		35,420	35,420		35,420	647,960
1967	1,500,000	35,420		35,420	35,420		35,420	683,380
1968	1,500,000	35,420		35,420	35,420		35,420	718,800
1969	1,500,000	35,420		35,420	35,420		35,420	754,220
Total		792,972	- 38,752	754,220	754,220		754,220	

¹ Excludes obligation of \$307,410 to be paid by the Office of Indian Affairs.² Obligation reduced in accordance with Secretary's provisional notice. Final amount to be repaid subject to negotiation with water users.³ Repayment obligation of Pine River Irrigation District, as established by

act of July 27, 1954 (68 Stat. 534), excludes \$250,000 to be paid by Bureau of Indian Affairs.

⁴ Unpaid accruals through fiscal year 1954 funded under provisions of contract dated Nov. 30, 1953.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1943-----	\$5,000	\$850
1944-----	2,500	6,650
1945-----	3,000	3,000
1946-----	4,200	4,200
1947-----	4,800	4,800
1948-----	4,800	4,800
1949-----	4,800	4,800
1950-----	5,400	5,400
1951-----	4,800	4,800
1952-----	4,800	4,800
1953-----	5,800	5,800
1954-----	7,800	7,800
1955-----	2,100	2,100
1956-----	6,000	6,000
1957-----	6,000	6,000
1958-----	3,000	3,000
1959-----	4,500	4,500
1960-----	6,800	6,800
1961-----	6,200	6,200
1962-----	7,200	7,200
1963-----	7,200	7,200
1964-----	7,200	7,800
1965-----	7,800	6,380
1966-----	6,380	10,200
1967-----	10,200	10,500
1968-----	11,598	9,702
1969-----	11,444	13,429
Total -----	161,322	164,711

PRESTON BENCH PROJECT

IDAHO

The construction of the Preston Bench project in Franklin County, Idaho, was authorized by act of June 15, 1948 (62 Stat. 442).

The project was developed to preserve the water supply of the project area. The project features include the diversion dam, Mink Creek Canal, and Station Creek Tunnel.

The total project cost of \$450,300 is allocated to irrigation and is repayable under the terms of the repayment contract with the Preston, Riverdale & Mink Creek Canal Co.

Operation and maintenance of the project was transferred to the Preston, Riverdale & Mink Creek Canal Co. on July 1, 1951.

The present irrigable area for service is 4,500 acres, with 3,933 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$475,999 and \$121.03, respectively.

CONTRACT

1948, August 31: Contract Ilr-1520 with the Preston, Riverdale

& Mink Creek Canal Co., which provides for the payment of the construction cost in 64 equal annual installments following a 10-year deferment period, scheduled to end December 31, 1961. During the deferment period, the company is to pay off other obligations due the United States through the Department of Agriculture. The deferment period ended December 31, 1959, and the first construction installment became due December 31, 1960.

Summary of status of repayment contracts:

Total value of contracted repayment	\$450,300
Total matured charges	63,323
Total matured charges repaid	63,323
Total matured charges unpaid	0

Summary statement of project cost and repayment:

Total irrigation plant	\$450,100
Property transfers	200
Total cost	450,300
Repayment of reimbursable costs, Preston, Riverdale and Mink Creek Canal Co.	450,300

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1961-----	\$450,300	\$7,036	-----	\$7,036	\$7,036	-----	\$7,036	\$ 7,036
1962-----	450,300	7,036	-----	7,036	7,036	-----	7,036	14,072
1963-----	450,300	7,036	-----	7,036	7,036	-----	7,036	21,108
1964-----	450,300	7,036	-----	7,036	7,036	-----	7,036	28,144
1965-----	450,300	7,036	-----	7,036	7,036	-----	7,036	35,180
1966-----	450,300	7,035	-----	7,035	7,035	-----	7,035	42,215
1967-----	450,300	7,036	-----	7,036	7,036	-----	7,036	49,251
1968-----	450,300	7,036	-----	7,036	7,036	-----	7,036	56,287
1969-----	450,300	7,036	-----	7,036	7,036	-----	7,036	63,323
Total--	-----	63,323	-----	63,323	63,323	-----	63,323	-----

PROVO RIVER PROJECT

UTAH

The construction of the Provo River project in Utah, Salt Lake, Summit, and Wasatch Counties, Utah, was approved by the President on November 16, 1935. Construction of the Salt Lake Aqueduct as a part of the project was approved by the President on October 24, 1938. Deer Creek Powerplant was authorized by the Secretary's finding of feasibility on August 20, 1951, under the provisions of the Reclamation Project Act of 1939 (53 Stat. 1187).

Project features include the Deer Creek Dam, Reservoir, and 4,950-kilowatt powerplant, enlarged Weber-Provo diversion canal, Duchesne Tunnel, Provo River channel revision, enlarged Provo Reservoir canal, Jordan Narrows siphon, Salt Lake Aqueduct, and Terminal Reservoir. The project consists of the Aqueduct division, Deer Creek Powerplant, and the Deer Creek division.

STATEMENT OF COST AND REPAYMENT

	Project total	Deer Creek division	Power	Aqueduct division
<i>Cost</i>				
Multipurpose plant:				
Deer Creek Dam and appurtenant works-----	\$4,163,921	\$4,154,367	\$9,554	-----
Provo River channel revision-----	5,024,031	5,024,031	-----	-----
Weber Provo diversion canal-----	1,541,233	1,541,233	-----	-----
Duchesne Tunnel-----	9,218,636	9,218,636	-----	-----
Irrigation plant:				
Murdock Diversion Dam-----	230,931	230,931	-----	-----
Provo River channel enlargement-----	3,640,684	3,640,684	-----	-----
Electric plant—Deer Creek Powerplant, etc.-----	1,060,829	-----	1,060,829	-----
Municipal and industrial water plant—Salt Lake Aqueduct-----	12,869,151	-----	-----	\$12,869,151
Subtotal plant, property, and equipment-----	37,749,416	23,809,882	1,070,383	12,869,151
Property transfers:	47,137	47,137	-----	-----
Total cost-----	37,796,553	23,857,019	1,070,383	12,869,151
Other charges:				
O&M deficit-----	58,909	58,909	-----	-----
Total-----	37,855,462	23,915,928	1,070,383	12,869,151
Allocation:				
Reimbursable:				
Irrigation-----	6,376,508	6,376,508	-----	-----
Commercial power-----	1,070,383	-----	1,070,383	-----
Municipal water-----	30,350,236	17,481,085	-----	12,869,151
Nonreimbursable:				
Irrigation-----	15,485	15,485	-----	-----
Municipal and industrial water-----	42,850	42,850	-----	-----
<i>Repayment and other credits</i>				
Repayment realized:				
Miscellaneous income-----	58,791	40,746	-----	18,045
Repayment contracts matured-----	10,224,405	5,016,694	-----	5,207,711
Contributions-----	55,746	52,012	-----	3,734
Power revenues-----	131,968	-----	131,968	-----
Subtotal repayment realized-----	10,470,910	5,109,452	131,968	5,229,490
Anticipated future repayment:				
Repayment contracts unmatured-----	26,193,659	18,552,191	-----	7,641,468
Power revenues-----	938,415	-----	938,415	-----
Subtotal anticipated future repayment-----	27,132,074	18,552,191	938,415	7,641,468
Total repayment-----	37,602,984	23,661,643	1,070,383	12,870,958
Other credits:				
Nonreimbursable—Civilian Conservation Corps costs-----	58,335	58,335	-----	-----
Repayment obligation transferred to Weber River project-----	196,247	196,247	-----	-----
Subtotal other credits-----	254,582	254,582	-----	-----
Total repayment and other credits-----	37,857,566	23,916,225	1,070,383	12,870,958
Surplus-----	2,104	297	-----	1,807

AQUEDUCT DIVISION

The total cost of constructing the Aqueduct division is \$12,869,151, which is allocated to municipal and industrial water. The entire amount less miscellaneous revenues and contributions is repayable under the provisions of contracts with the Metropolitan Water District of Salt Lake City.

The aqueduct was transferred to the District for its operation and maintenance on May 1, 1951. The Termini-

nal Reservoir was transferred to the District for operation and maintenance on April 1, 1952.

CONTRACTS

1938, November 16: Contract IIr-1074 with Metropolitan Water District of Salt Lake City for repayment of construction cost obligation in 40 annual installments. (Repayment obligation—\$5,550,000.)

1946, December 13: Supplemental contract IIr-1074 with

Metropolitan Water District of Salt Lake City for repayment of increased costs in 40 annual installments. (Increased repayment obligation to \$8,043,650.)

1949, February 7: Supplemental contract with Metropolitan Water District of Salt Lake City for repayment of con-

struction obligation in excess of \$8,043,650 in accordance with Public Law 462, 80th Congress, 2d session (ch. 159, 62 Stat. 92). These increased construction costs will be paid in 15 consecutive annual installments, the first of which was made in fiscal year 1952.

CONSTRUCTION REPAYMENT HISTORY—AQUEDUCT DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1946	\$5,550,000							
1947	8,043,650							
1948	8,043,650							
1949	8,043,650							
1950	11,067,527							
1951	11,077,319	\$200,000		\$200,000	\$200,000		\$200,000	\$200,000
1952	12,846,289	310,000		310,000	310,000		310,000	510,000
1953	12,878,635	310,000		310,000	310,000		310,000	820,000
1954	12,871,036	310,000		310,000	310,000		310,000	1,130,000
1955	12,869,262	310,000		310,000	310,000		310,000	1,440,000
1956	12,869,252	310,000		310,000	310,000		310,000	1,750,000
1957	12,849,242	310,000		310,000	310,000		310,000	2,060,000
1958	12,848,966	310,000		310,000	310,000		310,000	2,370,000
1959	12,848,778	310,000		310,000	310,000		310,000	2,680,000
1960	12,848,778	310,000		310,000	310,000		310,000	2,990,000
1961	12,849,178	310,000		310,000	310,000		310,000	3,300,000
1962	12,849,179	310,000		310,000	310,000		310,000	3,610,000
1963	12,849,179	310,000		310,000	310,000		310,000	3,920,000
1964	12,849,179	310,000		310,000	310,000		310,000	4,230,000
1965	12,849,179	310,000		310,000	310,000		310,000	4,540,000
1966	12,849,179	265,529		265,529	265,529		265,529	4,805,529
1967	12,849,179							4,805,529
1968	12,849,179	201,091		201,091	201,091		201,091	5,006,620
1969	12,849,179	201,091		201,091	201,091		201,091	5,207,711
Total		5,207,711		5,207,711	5,207,711		5,207,711	

DEER CREEK POWERPLANT

The Deer Creek Powerplant, a 4,950-kilowatt 2-unit plant, cost \$1,070,383. This cost includes the transmission line, substation, and tube valve modification in the dam and is assigned to power for repayment. Upon repayment of this cost, annual net power revenues of approximately \$44,236 and the interest on the power investment will then be available for application to Deer Creek division costs.

CONTRACTS AND NOTICE

- 1938, December 20: Contract 11r-1082 with Provo River Water Users' Association, Utah Power and Light Co., and Utah Light & Traction Co., regarding effect of adjustments in Provo and Weber Rivers' streamflows on power companies' power production.
- 1958, June 20: Contract 14-06-400-752 with Provo River Water Users' Association relating to operation and maintenance of Deer Creek Powerplant. May be canceled by either party on six months' notice.
- 1958, September 12: Letter of notification that commencing at 12:01 a.m. September 16, 1958, the operation and main-

tenance of the Deer Creek Powerplant to be performed by the Association in accordance with contract No. 14-06-400-752.

DEER CREEK DIVISION

The total cost of the Deer Creek division is \$23,857,019. This cost includes rehabilitation and betterment costs of \$161,174. Also included is \$196,247 repayment obligation transferred to Weber Basin project. The entire investment less nonreimbursable C.C.C. costs is repayable under the terms of the contracts with the Provo River Water Users Association. All features of the Deer Creek division have been turned over to the Provo River Water Users Association for operation and maintenance by notices dated: May 2, 1952, January 30, 1953, February 20, 1953, January 8, 1954, March 1, 1956, May 22, 1958, July 1, 1958, and September 12, 1958.

Repayment contracts.—The Provo River Water Users Association will repay \$23,568,885 of Deer Creek division costs. \$159,216 of this represents rehabilitation

and betterment costs, to be repaid in 8 years under terms of the 1964 contract.

The original Provo River Water Users Association repayment contract to repay \$7,600,000 in 40 annual installments was signed June 27, 1936. A supplemental contract, dated December 20, 1946, increased the contract obligation to \$11,400,000, with no change in payout period. Supplemental contract, dated February 2, 1949 (authorized by Public Law 462, 80th Congress, 2d Session), provides for the payment of Deer Creek division costs in excess of \$11,400,000, to be repaid on a water rental basis before the repayment provisions of supplemental contract, dated December 20, 1946, would become effective. This excess is \$12,009,669, with repayment thereof now contemplated in about 35 years. Then payments begin on the repayment obligation of \$11,400,000. Total payout period is thus contemplated at 75 years.

NOTICES AND CONTRACTS

- 1936, June 27: Contract IIR-873 with Provo River Water Users Association for repayment of construction obligation in 40 annual installments. Repayment obligation—\$7,600,000.
- 1937, July 3: Supplemental contract IIR-874 with Provo River Water Users Association amended certain contract articles.
- 1938, December 20: Contract IIR-1083 with the Provo River Water Users Association and Weber River Water Users Association transferring management, operation and maintenance, and appropriate construction costs of the Weber-Provo diversion canal to the Deer Creek division, Provo River project.
- 1939, October 28, and 1939, November 28: Contracts IIR-1182 and IIR-1180 with Provo River Water Users Association and Provo Reservoir Water Users Co., respectively, regarding the enlargement of the Provo Reservoir canal and construction of Duchesne Tunnel.
- 1946, December 20: Supplemental contract IIR-874 with Provo River Water Users Association for repayment of increased costs in 40 annual installments. Increased repayment obligation to \$11,400,000.
- 1949, February 2: Supplemental contract IIR-874 with Provo

River Water Users Association relating to repayment of construction obligation in excess of \$11,400,000 in accordance with Public Law 462, 80th Congress, 2d session.

- 1949, April 12; 1950, April 24; 1951, March 9: Annual water rental contracts with Provo River Water Users Association.
- 1952, January 31: Letter notice, water rental charges for 1952 irrigation season.
- 1954, January 8: Notice. Commencing March 1, 1954, the Association, at its own expense, operates and maintains Provo River channel revision. All irrigation works for the Deer Creek division have been transferred to the Association except Deer Creek Dam and appurtenant works.
- 1958, May 22: Notice that commencing July 1, 1958, the Provo River Water Users Association at its own cost and expense assumes care, operation and maintenance, and administration of Deer Creek Dam and appurtenant works excluding Deer Creek Powerplant.
- 1959, November 16: Amendment to supplemental IIR-874 among the United States, the Provo River Users Association, and six Metropolitan Water Districts of Salt Lake City, Provo, Orem, Pleasant Grove-Lindon, American Fork, and Lehi for channel improvements, to be repaid at their pro-rata shares in excess of \$11,400,000 at \$3.25 per share. Upon repayment in full, said districts shall continue to pay to the Association at \$2.85 per share.
- 1961, October 31: Contract for transportation of water for South Kamas Irrigation Co. and the Washington Irrigation Co. through the Duchesne Tunnel, not to exceed 1,400 acre-feet in any one year, at \$1.10 per acre-foot, minimum payment \$770 annually. (Little Deer Creek Dam washed out June 16, 1963, and at present time water cannot be delivered.)
- 1964, August 14: Contract 14-06-400-3742 for rehabilitation and betterment work not to exceed \$270,000, to be repaid in annual installments of \$20,000.

Summary of status of repayment contracts:

Total value of repayment contracts	\$36,418,064
Total matured charges	10,224,405
Total matured charges repaid	10,224,405
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—DEER CREEK DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1947-----	\$7,600,000	-----	-----	-----	-----	-----	-----	-----
1948-----	11,400,000	-----	-----	-----	-----	-----	-----	-----
1949-----	11,400,000	-----	-----	-----	-----	-----	-----	-----
1950-----	11,552,446	-----	-----	-----	-----	-----	-----	-----
1951-----	14,341,366	-----	-----	-----	-----	-----	-----	-----
1952-----	16,726,281	\$207,667	-----	\$207,667	\$207,667	-----	\$207,667	\$207,667
1953-----	18,961,316	179,918	-----	179,918	179,918	-----	179,918	387,585
1954-----	19,069,783	287,320	-----	287,320	287,320	-----	287,320	674,905
1955-----	19,230,033	255,200	-----	255,200	255,200	-----	255,200	930,105
1956-----	19,324,304	231,800	-----	231,800	231,800	-----	231,800	1,161,905
1957-----	19,287,645	197,400	-----	197,400	197,400	-----	197,400	1,359,305
1958-----	19,717,402	222,800	-----	222,800	222,800	-----	222,800	1,582,105
1959-----	19,973,551	268,200	-----	268,200	268,200	-----	268,200	1,850,305
1960-----	20,140,083	292,424	-----	292,424	292,424	-----	292,424	2,142,729
1961-----	20,686,939	284,412	-----	284,412	284,412	-----	284,412	2,427,141
1962-----	21,745,761	278,545	-----	278,545	278,545	-----	278,545	2,705,686
1963-----	22,611,984	306,843	-----	306,843	306,843	-----	306,843	3,012,529
1964-----	23,088,041	305,781	-----	305,781	305,781	-----	305,781	3,318,310
1965-----	23,679,457	405,895	-----	405,895	405,895	-----	405,895	3,724,205
1966-----	23,568,962	314,030	-----	314,030	314,030	-----	314,030	4,038,235
1967-----	23,570,903	327,905	-----	327,905	327,905	-----	327,905	4,366,140
1968-----	23,568,945	325,569	-----	325,569	325,569	-----	325,569	4,691,709
1969-----	23,568,885	324,985	-----	324,985	324,985	-----	324,985	5,016,694
Total--	-----	5,016,694	-----	5,016,694	5,016,694	-----	5,016,694	-----

PAYOUT STUDY

Fiscal year	IRRIGATION				MUNICIPAL AND INDUSTRIAL WATER				INVESTMENT REPAYMENT FROM POWER REVENUES				Earned sur-plus, cumulative			
	Deer Creek Division			Pay-ments by water users	Deer Creek Division		Aqueduct Division		Net revenues	Repayment com-ponents of net revenues		Interest bearing com-mercial electric plant				
	Pay-ments by water users	Adjust-ments	Balance to repay		Pay-ments by water users	Adjust-ments	Balance to repay	Pay-ments by water users		Adjust-ments	Balance to repay	Interest, 3 per-cent		Prin-cipal	In service end of year	Balance to be repaid
Value of repayment	contracts	at 6.30.57														
1957.	\$360,841		\$5,120,098	\$998,464		\$14,167,547	\$2,060,000		\$12,849,242	\$12,593	\$1,055,695	\$1,043,102				
1958.	59,144	\$114,083	4,759,257	163,656	\$315,674	13,169,083	310,000		10,478,966	11,242	1,082,546	1,081,195				
1959.	71,196	67,998	4,810,998	197,004	188,152	13,321,219	310,000		10,168,778	15,526	1,070,655	1,085,211				
1960.	67,213	44,207	4,810,998	225,211	122,324	13,209,362	310,000		9,858,778	32,436	1,070,655	1,085,211				
1961.	45,686	145,168	4,887,474	238,726	401,688	13,372,324	310,000	400	9,549,178	1,457	1,069,575	1,115,233				
1962.	39,819	281,075	5,128,730	238,726	777,747	13,911,345	310,000		8,239,178	12,194	1,069,575	1,136,497				
1963.	68,117	229,948	5,290,561	238,726	636,275	14,308,894	310,000		8,929,178	33,102	1,070,664	1,103,372				
1964.	67,055	126,374	5,439,880	238,726	349,683	14,419,851	310,000		8,619,178	30,251	1,069,631	1,105,189				
1965.	91,019	156,997	5,415,858	238,726	434,419	14,539,394	310,000		8,309,178	38,475	1,069,791	1,119,330				
1966.	67,959	(29,332)	5,318,567	216,071	1,426	14,212,160	265,528		8,043,650	31,664	1,070,076	1,082,879				
1967.	74,488	515	5,244,594	253,417	(1,439)	13,905,313	201,091		8,043,650	32,486	1,070,076	1,082,879				
1968.	72,152	(519)	5,171,923	253,417	(1,439)	13,705,313	201,091		7,842,559	32,356	1,070,383	1,078,522				
1969.	71,568	(15)	5,100,340	253,417	(45)	13,451,851	201,091		7,641,468	30,188	1,070,383	938,415				
Sub-total	1,156,257	1,136,499		3,860,437	3,144,741		5,207,710		493,383	361,415	131,968					
1970.	76,558	(79)	5,023,703	253,417	(218)	13,198,216	201,092		7,440,376	28,152	1,070,383	922,031				
1971.	79,426		4,944,277	253,417		12,944,799	201,092		7,239,284	16,384	1,070,383	905,156				
1972.	79,638		4,864,639	253,417		12,691,382	201,092		7,038,192	17,875	1,070,383	887,775				
1973.	79,638		4,785,001	253,417		12,437,965	201,092		6,837,100	17,603	1,070,383	870,172				
1974.	76,716		4,708,225	245,495		12,192,470	201,092		6,636,008	26,105	1,070,383	852,041				
1975.	74,329		4,633,896	238,726		11,953,714	201,092		6,434,916	25,561	1,070,383	833,366				
1976.	74,329		4,559,567	238,726		11,715,018	201,092		6,233,824	25,001	1,070,383	814,131				
1977.	74,329		4,485,238	238,726		11,476,292	201,092		6,032,732	24,421	1,070,383	794,319				
1978.	74,329		4,410,909	238,726		11,237,566	201,092		5,831,640	23,830	1,070,383	773,913				
1979.	74,329		4,336,580	238,726		10,998,840	201,092		5,630,548	23,217	1,070,383	752,894				
1980.	74,329		4,262,251	238,726		10,760,114	201,092		5,429,456	22,597	1,070,383	731,245				
1981.	74,329		4,187,922	238,726		10,521,388	201,092		5,228,364	22,937	1,070,383	708,946				
1982.	74,329		4,113,593	238,726		10,282,662	201,092		5,027,272	21,268	1,070,383	685,978				
1983.	74,329		4,039,264	238,726		10,043,936	201,092		4,826,180	23,657	1,070,383	662,321				
1984.	74,329		3,964,935	238,726		9,805,210	201,092		4,625,088	19,870	1,070,383	637,955				
1985.	74,329		3,890,606	238,726		9,566,484	201,092		4,423,996	19,139	1,070,383	612,858				
1986.	74,329		3,816,277	238,726		9,327,758	201,092		4,222,904	18,386	1,070,383	587,008				
1987.	74,329		3,741,948	238,726		9,089,032	201,092		4,021,812	17,610	1,070,383	560,382				
1988.	74,329		3,667,619	238,726		8,850,306	201,092		3,820,720	16,811	1,070,383	532,957				
1989.	74,329		3,593,290	238,726		8,611,580	201,092		3,619,628	15,141	1,070,383	504,710				
1990.	74,329		3,518,961	237,824		8,373,756	201,092		3,418,536	15,141	1,070,383	475,615				
1991.	74,329		3,444,632	(//)		8,137,756	201,092		3,217,444	14,268	1,070,383	445,647				
1992.	74,329		3,370,303	(//)		7,902,756	201,092		3,016,352	13,369	1,070,383	414,780				
1993.	74,329		3,295,974	(//)		7,677,756	201,092		2,815,260	12,443	1,070,383	382,987				
1994.	74,329		3,221,645	(//)		7,452,756	201,092		2,614,168	11,490	1,070,383	350,241				
1995.	74,329		3,147,316	(//)		7,227,756	201,092		2,413,076	10,577	1,070,383	316,512				
1996.	74,329		3,072,987	(//)		7,002,756	201,092		2,211,984	9,495	1,070,383	281,771				
1997.	46,743		2,926,244	(//)		6,777,756	201,092		2,010,892	8,453	1,070,383	245,988				
1998.	75,656		2,850,588	209,344		6,552,756	201,092		1,809,800	7,380	1,070,383	209,132				
1999.	75,656		2,774,932	209,344		6,327,756	201,092		1,608,708	6,274	1,070,383	171,170				
2000.	75,656		2,709,276	209,344		6,102,756	201,092		1,407,616	5,135	1,070,383	132,069				

RAPID VALLEY PROJECT

SOUTH DAKOTA

Construction of the Rapid Valley project (Deerfield Dam) in Pennington County, South Dakota, was recommended by the Secretary on October 2, 1939, and approved by the President on November 8, 1939, under the terms of the 1940 Appropriation Act of May 10, 1939 (53 Stat. 685, 719). Allocations under that act were rescinded in part and the project was reauthorized by the President on October 25, 1940, pursuant to the Water Conservation and Utilization Act of August 11, 1939, as amended by the act of October 14, 1940 (54 Stat. 1119). A revised plan for the construction of the project was recommended by the Secretary on February 20, 1942, and approved by the President on June 5, 1942. After limitation of construction in December 1942 by the War Production Board, continuation was approved by the President November 22, 1943.

Deerfield Dam and Reservoir, located on Castle Creek, a tributary of Rapid Creek, was constructed to supply water to the City of Rapid City, S. Dak., about 25 miles downstream, a supplemental water supply for approximately 8,900 acres of land in the Rapid Valley Conservancy District. Rapid City has a senior priority to 7,000 acre-feet and the Conservancy District has a junior right to the remaining 8,100 acre-feet of active storage in the reservoir.

Water released into the stream below the dam for the Conservancy District is diverted by private canal companies into existing canals. Rapid City obtains a portion of its municipal water from Jackson Spring, a source that contributes to the natural flow of Rapid Creek. During the irrigation season, water from the city's storage in Deerfield Reservoir is released into Castle Creek to replace that consumed from Jackson Spring to which irrigators have a prior right. In addition to its basic water supply function, the project provides valuable recreational opportunities.

Deerfield Dam is an earth and rockfill structure 133 feet high and 825 feet long, with total storage capacity

of 15,700 acre-feet. Water is delivered and paid for at the outlet works of Deerfield Dam. Initial water delivery was in 1946.

The dam is operated by the Bureau of Reclamation in conjunction with Pactola Dam, a Missouri River Basin project facility located on Rapid Creek. Operating funds are advanced by the City of Rapid City. The conservancy district pays to the municipality its proportionate share of the operation and maintenance costs. The cost of constructing the completed features was \$920,224.

Cost and repayment:

Costs:

Plant, property, and equipment: Deerfield	
Dam and Reservoir	\$920,224
Total cost	<u>920,224</u>

Reimbursable:

Municipal water	500,000
Irrigation	11,596
Nonreimbursable, irrigation:	408,628

Repayments and other credits:

Repayment realized:

Repayment contracts matured	280,292
Sale of water and rentals	11,596

Subtotal	291,888
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Repayment contracts unmatured	219,708
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Total repayment	511,596
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Other credits: Nonreimbursable plant deductions—

act of August 11, 1939 (WCU)	408,628
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Total repayment and other credits	<u>920,224</u>
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Repayment contracts.—The municipality of Rapid City, S. Dak., has contracted with the United States for repayment of \$500,000 toward the construction cost of Deerfield Dam and Reservoir.

The conservancy district has contracted with the United States for water delivered from Deerfield Dam

for irrigation at the rate of \$1 per acre-foot of water delivered, and as of June 30, 1969, had paid to the United States for water received under the contract the sum of \$8,256. Provision is also contained in the contract for the construction of possible future irrigation works with repayment and costs not to exceed \$600,000. There are no current plans for construction of these additional works.

CONTRACTS

1943, July 27: Contract 11r-1413 with City of Rapid City, S. Dak., for \$500,000 toward the construction cost of

Deerfield Dam and Reservoir, repayable in 40 equal annual installments of \$12,500 due on or before May 1 of each year.

1943, July 27: Contract 11r-1413 with Rapid Valley Water Conservancy District for water delivered from Deerfield Dam for irrigation, at \$1 per acre-foot delivered, and for \$600,000 for repayment of future irrigation facilities to be constructed.

Summary of status of repayment contracts:

Total value of contracted repayment	\$500,000
Total matured charges	280,292
Total matured charges repaid	280,292
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1948-----	\$500,000	\$12,500	-----	\$12,500	\$12,500	-----	\$12,500	\$12,500
1949-----	500,000	12,500	-----	12,500	12,500	-----	12,500	25,000
1950-----	500,000	12,500	-----	12,500	12,500	-----	12,500	37,500
1951-----	500,000	12,500	-----	12,500	12,500	-----	12,500	50,000
1952-----	500,000	12,500	-----	12,500	12,500	-----	12,500	62,500
1953-----	500,000	12,500	-----	12,500	12,500	-----	12,500	75,000
1954-----	500,000	12,500	-----	12,500	12,500	-----	12,500	87,500
1955-----	500,000	12,500	-----	12,500	12,500	-----	12,500	100,000
1956-----	500,000	12,500	-----	12,500	12,500	-----	12,500	112,500
1957-----	500,000	12,500	-----	12,500	12,500	-----	12,500	125,000
1958-----	500,000	12,500	-----	12,500	12,500	-----	12,500	137,500
1959-----	500,000	12,500	-----	12,500	12,500	-----	12,500	150,000
1960-----	500,000	12,500	-----	12,500	12,500	-----	12,500	162,500
1961-----	500,000	12,500	¹ \$5,292	17,792	12,500	\$5,292	17,792	180,292
1962-----	500,000	12,500	-----	12,500	12,500	-----	12,500	192,792
1963-----	500,000	12,500	-----	12,500	12,500	-----	12,500	205,292
1964-----	500,000	12,500	-----	12,500	12,500	-----	12,500	217,792
1965-----	500,000	12,500	-----	12,500	12,500	-----	12,500	230,292
1966-----	500,000	12,500	-----	12,500	12,500	-----	12,500	242,792
1967-----	500,000	12,500	-----	12,500	12,500	-----	12,500	255,292
1968-----	500,000	12,500	-----	12,500	12,500	-----	12,500	267,792
1969-----	500,000	12,500	-----	12,500	12,500	-----	12,500	280,292
Total -----	-----	275,000	5,292	280,292	275,000	5,292	280,292	-----

¹ Revenues credit (State sales applied to maturities.)

Payout schedule.—The contract with the municipality of Rapid City is a 40-year repayment type and

provides for an annual payment of \$12,500 beginning May 1, 1948.

RATHDRUM PRAIRIE PROJECT

IDAHO

A number of investigations have been made for irrigation development of the Rathdrum Prairie area, a triangular body of land northwest of Coeur d'Alene, Idaho. Although no complete irrigation system has been constructed to serve the area, small parts have been irrigated through private development. Construction work by the Bureau has involved rehabilitation of facilities for the Hayden Lake and Post Falls Irrigation Districts as units of the greater Rathdrum Prairie area.

Construction of temporary water service facilities for the Post Falls unit was authorized by the President on January 29, 1944, under terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended. Work on the Hayden Lake unit was authorized by the Secretary of the Interior on June 9, 1947. Additional emergency rehabilitation work was authorized by the 1957 Public Works Appropriation

Act of July 2, 1956 (70 Stat. 474). Construction began on the Post Falls unit on March 26, 1945, and on the Hayden Lake unit on May 18, 1948.

Work on the Post Falls unit provided irrigation water for about 3,500 acres, which had been partially irrigated since 1910, by construction of a pumping plant on Spokane River and rehabilitation of the distribution system. Rehabilitation of the Hayden Lake unit, part of which had been irrigated since 1906, involved replacement of 8,600 feet of the main discharge line and overhauling of the pumping equipment which lifts water from Hayden Lake to irrigate about 1,050 acres.

Major facilities of the Post Falls unit consist of two pumps, each capable of delivering 30 cubic feet per second; 3,000 feet of wood-stave discharge pipe, 7 miles of main canal, 4 miles of open laterals, and 14,500 feet of concrete and wood-stave pipe laterals.

STATEMENT OF PROJECT COST AND REPAYMENT

	Project total irrigation	Post Falls unit, Post Falls Irrigation district	Hayden Lake unit, Hayden Lake Irrigation district
<i>Costs</i>			
Irrigation plant-----	\$1,386,545	\$363,951	\$1,022,594
Deferred maintenance—R&B-----	43,790		43,790
Property transfers-----	130		130
Total construction cost-----	1,430,465	363,951	1,066,514
<i>Repayment and Other Credits</i>			
Repayment realized:			
Repayments realized from other sources-----	1,274		1,274
Repayment contracts matured-----	234,452	96,623	137,829
Excess of income over expense-----	14		14
Subtotal repayment realized-----	235,740	96,623	139,117
Anticipated future repayment:			
Repayment contracts unmatured-----	673,952	93,377	580,575
Power revenues (Bonneville Power Administration)-----	346,822		346,822
Subtotal anticipated future repayment-----	1,020,774	93,377	927,397
Total repayment-----	1,256,514	190,000	1,066,514
Nonreimbursable plant deductions-----	173,951	173,951	
Total repayment and other credits-----	1,430,465	363,951	1,066,514

POST FALLS UNIT

In 1969, the irrigable acreage for service in this unit was 3,357 acres and irrigated area was 3,000 acres. The gross crop value was \$349,238 and the average value per irrigated acre was \$116.41 in this same year.

Total construction cost of this unit was \$363,951, of which \$190,000 is reimbursable and \$173,951 is non-reimbursable under provisions of the Water Conservation and Utilization Act.

Operation and maintenance of the irrigation facilities was turned over to the Post Falls Irrigation District at the beginning of the 1949 irrigation season. Costs are financed by assessments of water users. The United States pays the costs of pumping power secured from a private utility, using funds advanced by the District.

Repayment contract.—The repayment contract with the District, dated January 11, 1945, provides for repayment of \$190,000 in 40 equal annual installments of \$4,750 each. A 3-year development period began

January 1, 1946, and ended December 31, 1948. Development period accruals and collections for the period 1946–48 were \$6,913, \$10,864, and \$11,661, respectively.

Payout schedule.—Construction repayment installments began in 1950 and will continue through 1989.

CONTRACT AND NOTICE

1945, January 11: Contract H-1433 with Post Falls Irrigation District. To repay \$190,000 for irrigation construction in 40 annual payments of \$4,750. Installments due December 31. Pumping power charge due May 1.

1948, June 25: Department notice announcing end of development period, effective date of District assuming operation and maintenance and date of first payment on construction obligation.

Summary of status of repayment contracts:

Total value of contracted repayment	\$190,000
Total matured charges	96,623
Total matured charges repaid	96,623
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—POST FALLS UNIT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950-----	\$190,000	\$4,750	-----	\$4,750	\$4,750	-----	\$4,750	\$4,750
1951-----	190,000	4,750	-----	4,750	4,750	-----	4,750	9,500
1952-----	190,000	4,750	-----	4,750	4,750	-----	4,750	14,250
1953-----	190,000	4,750	-----	4,750	4,750	-----	4,750	19,000
1954-----	190,000	4,750	-----	4,750	4,750	-----	4,750	23,750
1955-----	190,000	4,750	-----	4,750	4,750	-----	4,750	28,500
1956-----	190,000	4,750	-----	4,750	4,750	-----	4,750	33,250
1957-----	190,000	4,750	-----	4,750	4,750	-----	4,750	38,000
1958-----	190,000	4,750	-----	4,750	4,750	-----	4,750	42,750
1959-----	190,000	4,750	-----	4,750	4,750	-----	4,750	47,500
1960-----	190,000	4,750	-----	4,750	4,750	-----	4,750	52,250
1961-----	190,000	4,750	-----	4,750	4,750	-----	4,750	57,000
1962-----	190,000	4,750	-----	4,750	4,750	-----	4,750	61,750
1963-----	190,000	4,750	-----	4,750	4,750	-----	4,750	66,500
1964-----	190,000	4,750	-----	4,750	4,750	-----	4,750	71,250
1965-----	190,000	4,750	-----	4,750	4,750	-----	4,750	76,000
1966-----	190,000	4,750	-----	4,750	4,750	-----	4,750	80,750
1967-----	190,000	4,750	-----	4,750	4,750	-----	4,750	85,500
1968-----	190,000	6,373	-----	6,373	6,373	-----	6,373	91,873
1969-----	190,000	4,750	-----	4,750	4,750	-----	4,750	96,623
Total -----	-----	96,623	-----	96,623	96,623	-----	96,623	-----

HAYDEN LAKE UNIT

Construction cost of this unit under the 1949 repayment contract totals \$118,409, all of which is reimbursable by the water users.

Operation and maintenance of the irrigation system was retained by the District during construction, and

the District continues to operate the system. Costs are financed by assessments of water users.

Additional construction work in the form of a new pump house and new pumping units, and replacement of portions of the distribution system was completed in 1959 at a cost to the Hayden Lake Irrigation District

of \$547,500. This work was authorized by the Public Works Appropriation Act, 1957 (Public Law 641, 70 Stat. 474), and was covered under the 1957 repayment contract with the District. Accelerated corrosion and deterioration of the pipelines brought about another rehabilitation program at a cost of \$520,000. This rehabilitation of District facilities was authorized by Public Law 87-289 (75 Stat. 588), dated September 22, 1961.

In 1969, the irrigable acreage for service and the irrigated area of this unit were 1,600 acres and 1,156 acres, respectively. The gross value of crops produced on these lands was \$75,776 and the average value per irrigated acre was \$65.55.

Repayment contracts.—The repayment contract with the District, dated February 16, 1949, provided for repayment of a maximum construction obligation of \$125,000. Actual cost was \$118,409. The 2-year development period began on January 1, 1951, and ended on December 31, 1952. An initial payment toward construction costs in the amount of \$17,850 was made at the time the contract with the District was executed. Regular annual installments began in 1954 and will continue through 1993.

Repayment contract 14-06-100-1182, dated April 20, 1957, for additional work to the irrigation system provides for a maximum construction obligation of \$547,500. Repayment to be made in 50 years commencing in 1962 upon expiration of a 3-year development period (1959 through 1961).

Repayment contract 14-06-100-2395, dated March 19, 1962 covered the construction program for pipeline replacement. Actual costs were \$440,564.

Of this cost, the District will repay \$52,495 and the

remainder will be repaid from power revenues from Bonneville Power Administration. Repayment is to be completed in 40 years commencing in 1964.

CONTRACTS AND NOTICES

- 1949, February 16: Contract 11r-1527 with Hayden Lake Irrigation District. To repay in 40 equal annual installments an obligation of \$125,000 (adjusted to cost of \$100,559, excluding initial payment of \$17,850.) Installments due semiannually on December 31 and June 30.
- 1950, December 29: Department notice announcing cost of project, development period, and date of initial installment on construction obligation.
- 1951, November 5: Department notice of actual construction cost.
- 1957, April 20: Contract 14-06-100-1182 with Hayden Lake Irrigation District. To repay in 50 annual installments a maximum obligation of \$547,500. Installments due semiannually on December 31 and June 30.
- 1962, March 19: Contract 14-06-100-2395 with Hayden Lake Irrigation District. To repay in 40 annual installments the obligation of \$52,495 for pipe replacement and additional work. Installments due December 31.
- 1965, February 5: Notice of actual construction costs of pipe replacement and additional work under March 19, 1962, contract. Pipe replacement costs were \$432,290, of which District will repay \$45,494.58 in 40 annual installments beginning December 31, 1964—29 at \$446.02 and 11 at \$2,960. Additional facilities cost was \$8,274, of which \$1,274 was advanced and remaining \$7,000 will be paid in 40 annual installments of \$175 each beginning December 31, 1964.

Summary of status of repayment contracts:

Total value of contracted repayment	\$718,404
Total matured charges	137,829
Total matured charges repaid	137,829
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—HAYDEN LAKE UNIT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1949-----	\$125,000	\$17,850	-----	\$17,850	\$17,850	-----	\$17,850	\$17,850
1950-----	125,000	-----	-----	-----	-----	-----	-----	17,850
1951-----	118,409	-----	-----	-----	-----	-----	-----	17,850
1952-----	118,409	-----	-----	-----	-----	-----	-----	17,850
1953-----	118,409	-----	-----	-----	-----	-----	-----	17,850
1954-----	118,409	2,514	-----	2,514	2,514	-----	2,514	20,364
1955-----	118,409	2,514	-----	2,514	2,514	-----	2,514	22,878
1956-----	118,409	2,514	-----	2,514	2,514	-----	2,514	25,392
1957-----	665,909	2,514	-----	2,514	2,514	-----	2,514	27,906
1958-----	665,909	2,514	-----	2,514	2,514	-----	2,514	30,420
1959-----	665,909	2,514	-----	2,514	2,514	-----	2,514	32,934
1960-----	665,909	2,514	-----	2,514	2,514	-----	2,514	35,448
1961-----	665,909	2,514	-----	2,514	2,514	-----	2,514	37,962
1962-----	718,404	2,514	-----	2,514	2,514	-----	2,514	40,476
1963-----	718,404	13,464	-----	13,464	13,464	-----	13,464	53,940
1964-----	718,404	13,464	-----	13,464	13,464	-----	13,464	67,404
1965-----	718,404	14,085	-----	14,085	14,085	-----	14,085	81,489
1966-----	718,404	14,085	-----	14,085	14,085	-----	14,085	95,574
1967-----	718,404	14,085	-----	14,085	14,085	-----	14,085	109,659
1968-----	718,404	14,085	-----	14,085	14,085	-----	14,085	123,744
1969-----	718,404	14,085	-----	14,085	14,085	-----	14,085	137,829
Total--	-----	137,829	-----	137,829	137,829	-----	137,829	-----

RIO GRANDE PROJECT

NEW MEXICO-TEXAS

The construction of the Leasburg Diversion Dam in New Mexico for the Rio Grande project was authorized by the Secretary of the Interior December 2, 1905, under the provisions of the Reclamation Act of 1902. The Reclamation Act was extended to Texas June 12, 1906, and Congress authorized the construction of Elephant Butte Dam on March 4, 1907. One hundred thousand dollars of nonreimbursable funds were appropriated from the General Treasury as the State Department's share for allocation by treaty of 60,000 acre-feet of water annually to Mexico. Caballo Dam was constructed in accordance with the Convention for the Rectification of the Rio Grande of February 1, 1933, between the United States and Mexico (48 Stat. 1621). Funds for the Elephant Butte power development were made available under the Interior Department Appropriation Act of August 9, 1937.

The basic public recreation facilities at Elephant Butte and Caballo Reservoirs in New Mexico were authorized by act of July 25, 1962 (76 Stat. 171). All costs of these facilities are nonreimbursable.

The purposes of the project are to provide irrigation water for lands in the Rio Grande Valley extending approximately 100 miles upstream and 40 miles downstream from the city of El Paso, Tex., and to furnish

hydroelectric power in central and southcentral New Mexico. The multipurpose features consist of the Elephant Butte Dam and Reservoir with a storage capacity of 2,195,000 acre-feet and Caballo Dam and Reservoir with a storage capacity of 344,000 acre-feet. The irrigation features of the project consist of 4 diversion dams, 141 miles of canals, 464 miles of laterals, and 470 miles of operating roads, which provide for the irrigation of 178,196 acres. The power features of the project consist of the Elephant Butte Powerplant with a capacity of 24,300 kilowatts, 491 miles of 115-kilovolt transmission lines, and 11 sub-substations with a combined capacity of 89,150 kilovolt-amperes which serve three private utility companies, one generating and transmission cooperative composed of 11-member cooperatives, one municipality, and two military defense establishments. The project is required by international treaty to furnish 60,000 acre-feet annually to the Juarez Valley, Republic of Mexico, and has a Warren Act contract covering excess and waste waters with the Hudspeth County Conservation and Reclamation District No. 1, Hudspeth County, Texas, which has an irrigable area of approximately 18,342 acres.

The project is divided into the Irrigation division and the Elephant Butte Power and Storage division.

STATEMENT OF COST AND REPAYMENT—RIO GRANDE PROJECT

Item	Total	Irrigation		Power	Power storage
		Elephant Butte Irrigation District	El Paso County Water Improvement District No. 1		
Costs					
Elephant Butte Dam and Reservoir-----	\$6,347,192	\$10,960	-----	\$4,234,976	\$2,101,256
Caballo Dam and Reservoir-----	2,096,397	-----	-----	-----	2,096,397
Irrigation facilities-----	11,887,183	6,403,557	\$5,483,626	-----	-----
Elephant Butte Powerplant-----	1,554,963	-----	-----	-----	1,554,963
Other electric plant-----	6,990,361	-----	-----	-----	6,990,361
Flood control plant-----	272,927	-----	-----	-----	272,927
Recreation facilities-----	608,311	-----	-----	-----	608,311
Subtotal, plant, property, and equipment--	29,757,334	6,414,517	5,483,626	4,234,976	13,624,215
Investigations-----	106,383	60,398	45,985	-----	-----
Deferred maintenance—Rehabilitation and betterment-----	1,821,263	-----	1,821,263	-----	-----
Total cost-----	31,684,980	6,474,915	7,350,874	4,234,976	13,624,215
O&M deficit-----	387,135	228,413	158,722	-----	-----
Interest and penalties-----	38,494	21,560	16,934	-----	-----
Total-----	32,110,609	6,724,888	7,526,530	4,234,976	13,624,215
Repayment and other credits					
Repayment realized:					
Repayment contracts matured-----	\$9,393,669	\$5,387,497	\$4,006,172	-----	-----
Contributions-----	531,378	329,316	202,062	-----	-----
Power revenues-----	-3,100,329	-----	-----	-----	-\$3,100,329
Miscellaneous income-----	161,851	60,725	42,359	-----	58,767
Water users advances-----	632,499	529,645	102,854	-----	-----
Rentals and miscellaneous revenues-----	37,700	26,085	11,615	-----	-----
Reserves for depreciation-----	1,816,336	-----	-----	-----	1,816,336
Subtotal repayment realized-----	9,473,104	6,333,268	4,365,062	-----	(1,225,226)
Anticipated future repayment:					
Repayment contracts unmatured-----	3,012,564	310,515	2,702,049	-----	-----
Future repayment contracts-----	105,017	64,021	37,029	\$3,967	-----
Power revenue-----	17,680,721	-----	-----	4,231,009	13,449,712
Subtotal anticipated future repayment-----	20,798,302	374,536	2,739,078	4,234,976	13,449,712
Total repayment-----	30,271,406	6,707,804	7,104,140	4,234,976	12,224,486
Other credits:					
Repayment reductions authorized-----	349,025	4,124	344,901	-----	-----
Nonreimbursable:					
Flood control-----	1,519,650	-----	-----	-----	1,519,650
Mexican Treaty-----	1,000,000	-----	-----	-----	1,000,000
Recreation-----	608,311	-----	-----	-----	608,311
Franklin Canal fence—W.P.A.-----	55,989	-----	55,989	-----	-----
Civilian Conservation Corps costs-----	23,500	2,000	21,500	-----	-----
Department of Justice funds-----	10,960	10,960	-----	-----	-----
Subtotal other credits-----	3,567,435	17,084	422,390	-----	3,127,961
Total repayment and other credits-----	33,838,841	6,724,888	7,526,530	4,234,976	15,352,447
Surplus-----	1,728,232	-----	-----	-----	1,728,232

IRRIGATION DIVISION

There are two contracting entities in the Irrigation division: the Elephant Butte Irrigation District covering the lands in the State of New Mexico, and the El Paso County Water Improvement District No. 1 covering the lands of the State of Texas.

ELEPHANT BUTTE IRRIGATION DISTRICT

The total cost of construction chargeable to the Elephant Butte Irrigation District is \$6,474,915. Operation and maintenance of the irrigation system is performed by the Bureau of Reclamation, with funds advanced by the District.

Repayment contracts.—The original contract, dated June 27, 1906, was between the United States and the Elephant Butte Water Users Association. By contract dated June 15, 1918, the Elephant Butte Irrigation District assumed the obligations of the Elephant Butte Waters Users Association, which included cost of the irrigation facilities in the State of New Mexico and a portion of the cost of Elephant Butte Dam. By contract dated November 9, 1937, in accordance with terms of the Appropriation Act of 1938, the District was relieved from repayment of the cost of Elephant Butte Dam in return for relinquishment of its interest in power development. By contract dated October 1, 1939, in accordance with terms of the Reclamation Act of 1939, repayment charges were spread over 40 years from date first installment became due under the original contract.

CONTRACTS

- 1906, June 27: Original contract for project construction. Joint contract between United States and Elephant Butte Water Users Association, El Paso Valley Water Users Association.
- 1917, July 6: Advancement of funds for drainage construction, contract with Elephant Butte Water Users Association pending formation of irrigation district.
- 1918, June 15: Contract Ilr-349 for construction of drainage works and works for distribution and delivery of irrigation water, repayment of construction and operation and maintenance charges. United States of America, Elephant Butte Water Users Association, Elephant Butte Irrigation District. (Dissolution of Elephant Butte Water Users Association.) Sets construction liability of \$6,530,000.
- 1922, July 1: Assignment to the District of certain water accounts.

- 1924, February 21: Additional construction work. District assumed additional construction obligation of \$940,000.
- 1928, July 16: Amendments to existing contracts for construction repayment. (Fixing charge at \$3.60 per acre.)
- 1929, December 20: Credits for drainage rights-of-way and increased total construction work. District assumed additional construction obligation of \$450,000 and made provision for \$230,000 credit to be applied for drainage rights-of-way to be obtained by District.
- 1937, November 9: Contract Ilr-982 for adjustment of project construction charges and for other purposes (relinquishment of interest in power development and advancement of operation and maintenance funds) reduced construction charges payable in fixed semiannual installments, period of repayment extended to 40 years. Total adjustment reduction \$2,410,864, resulting from relinquishment of power rights. Increased obligation \$188,876 for funded operation and maintenance and interest and penalties. Provided for District to advance funds for operation and maintenance operations.
- 1938, February 16: Providing for a 3-percent cushion on the irrigable area as allocated to the districts, Elephant Butte Irrigation District, El Paso County Water Improvement District No. 1.
- 1939, February 2: Construction of additional work with contributed funds and providing for crediting of certain revenues (storage charges).
- 1939, August 30: Amending and supplementing contract dated December 20, 1929, relating to credits on account of drainage rights-of-way (extending credits to statutory rights-of-way). Increased credit applicable to rights-of-way by \$30,000.
- 1939, October 1: Adjusting period for payment of construction charges, repayment period extended to 40 years exclusive of years of moratorium on construction charges, 1931 to 1935, inclusive.
- 1954, October 20: Supplemental contract providing for deferment of construction charges payable in calendar year 1955.
- 1955, September 13: Supplemental contract providing for deferment of construction charges payable in calendar year 1956.
- 1956, August 22: Supplemental contract providing for deferment of construction charges payable in 1957.
- 1957, October 23: Supplemental contract providing for deferment of construction charges payable in 1958.

Summary of status of repayment contracts for the Elephant Butte Irrigation District:

Total value of contracted repayment	\$5,698,012
Total matured charges	5,387,497
Total matured charges repaid	5,387,497
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—ELEPHANT BUTTE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921	\$4,500,000							
1922	4,500,000							
1923	4,500,000	\$45,000		\$45,000	\$44,991		\$44,991	\$44,991
1924	4,500,000	90,000		90,000	90,000	\$9	90,009	135,000
1925	7,470,000	108,000		108,000	108,000		108,000	243,000
1926	7,470,000	131,100		131,100	131,100		131,100	374,100
1927	7,470,000	190,070		190,070	190,070		190,070	564,170
1928	7,470,000	253,440		253,440	253,440		253,440	817,610
1929	7,470,000	269,415		269,415	269,415		269,415	1,087,025
1930	7,920,000	280,125		280,125	280,125		280,125	1,367,150
1931	7,920,000	291,600		291,600	291,600		291,600	1,658,750
1932	7,920,000	¹ 145,032		145,032	103,724		103,724	1,762,474
1933	7,920,000	¹ 73,447	² \$41,308	32,139			0	1,762,474
1934	7,941,560	(¹)	² 73,447	² 73,447			0	1,762,474
1935	7,965,682	(¹)		0			0	1,762,474
1936	7,941,560	(¹)		0			0	1,762,474
1937	7,941,560	(¹)		0			0	1,762,474
1938	³ 5,698,012	230,475		230,475	230,475		230,475	1,992,949
1939	5,698,012	151,351		151,351	151,351		151,351	2,144,300
1940	5,698,012	135,152		135,152	135,152		135,152	2,279,452
1941	5,698,012	124,322		124,322	124,322		124,322	2,403,774
1942	5,698,012	124,322		124,322	124,322		124,322	2,528,096
1943	5,698,012	124,322		124,322	124,322		124,322	2,652,418
1944	5,698,012	124,321		124,321	124,321		124,321	2,776,739
1945	5,698,012	124,322		124,322	124,322		124,322	2,901,061
1946	5,698,012	124,322		124,322	124,322		124,322	3,025,383
1947	5,698,012	124,322		124,322	124,322		124,322	3,149,705
1948	5,698,012	124,322		124,322	124,322		124,322	3,274,027
1949	5,698,012	124,321		124,321	124,321		124,321	3,398,348
1950	5,698,012	124,322		124,322	124,322		124,322	3,522,670
1951	5,698,012	124,322		124,322	124,322		124,322	3,646,992
1952	5,698,012	124,322		124,322	124,322		124,322	3,771,314
1953	5,698,012	124,322		124,322	124,322		124,322	3,895,636
1954	5,698,012	124,322		124,322	124,322		124,322	4,019,958
1955	5,698,012	62,161	(¹)	62,161	62,161		62,161	4,082,119
1956	5,698,012		(¹)					4,082,119
1957	5,698,012		(¹)					4,082,119
1958	5,698,012		(¹)					4,082,119
1959	5,698,012	62,161		62,161	62,161		62,161	4,144,280
1960	5,698,012	124,322		124,322	124,322		124,322	4,268,602
1961	5,698,012	124,322		124,322	124,322		124,322	4,392,924
1962	5,698,012	124,322		124,322	124,322		124,322	4,517,246
1963	5,698,012	124,321		124,321	124,321		124,321	4,641,567
1964	5,698,012	124,322		124,322	124,322		124,322	4,765,889
1965	5,698,012	124,321		124,321	124,321		124,321	4,890,210
1966	5,698,012	124,292		124,292	124,292		124,292	5,014,502
1967	5,698,012	124,305		124,305	124,305		124,305	5,138,807
1968	5,698,012	124,308		124,308	124,308		124,308	5,263,115
1969	5,698,012	124,382		124,382	124,382		124,382	5,387,497
Total		5,502,252	-114,755	5,387,497	5,387,488	9	5,387,497	

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$13,748; 1931, \$313,382; 1932, \$298,954; 1933, \$289,620; 1934, \$288,900; 1935, \$306,000; 1936, \$154,800.

² Decrease. Decreases cover amounts deferred under moratorium acts.

³ Decrease in obligation due to provisions of 1937 contract.

⁴ Supplemental contracts prepared under Secretary's authority deferring calendar year 1955, 1956, 1957, and 1958 installments.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—ELEPHANT BUTTE IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1921		
1922	\$145,000	\$128,881
1923	63,386	79,505
1924	109,806	109,806
1925	114,837	114,837
1926	139,702	139,702
1927	161,915	161,915
1928	181,028	181,028
1929	189,709	189,709
1930	220,903	186,960
1931	225,801	207,932
1932	190,470	109,644
1933	107,487	184,825
1934	125,833	164,068
1935	126,283	143,348
1936	144,089	144,089
1937	157,685	157,685
1938	195,944	195,944
1939	181,000	181,000
1940	184,997	184,997
1941	182,035	182,035
1942	190,536	190,536
1943	195,500	195,500
1944	248,470	248,470
1945	241,956	241,956
1946	295,000	295,000
1947	337,000	337,000
1948	450,000	450,000
1949	460,000	460,000
1950	521,500	521,500
1951	500,000	500,000
1952	535,000	535,000
1953	566,000	566,000
1954	579,000	579,000
1955	528,000	528,000
1956	426,207	426,207
1957	395,504	395,504
1958	518,131	518,131
1959	620,200	620,200
1960	582,470	582,470
1961	602,201	602,201
1962	615,637	615,637
1963	635,825	635,825
1964	672,771	672,771
1965	685,563	685,563
1966	692,218	692,218
1967	799,084	799,084
1968	772,909	772,909
1969	851,481	851,481
Total	17,666,073	17,666,073

EL PASO COUNTY WATER IMPROVEMENT
DISTRICT NO. 1

The total cost of construction chargeable to the El Paso County Water Improvement District No. 1 is \$7,350,874.

Rehabilitation work began in fiscal year 1960, primarily on the El Paso Valley laterals and drains. Work was completed in fiscal year 1964.

Repayment contracts.—The original contract dated June 27, 1906, was between the United States and the

El Paso Valley Water Users Association. By contract dated January 17, 1920, the El Paso County Water Improvement District No. 1 assumed the obligations of the El Paso Valley Water Users Association, which included cost of the irrigation facilities in the State of Texas and a portion of the cost of Elephant Butte Dam. By contract dated November 10, 1937, in accordance with terms of the Appropriation Act of 1938, the District was relieved from repayment of the cost of Elephant Butte Dam in return for relinquishment of their interest in power development. By contract dated October 1, 1939, in accordance with terms of the Reclamation Act of 1939, repayment charges were spread over 40 years from the date first installment became due under the original contract. Repayment contract dated November 16, 1966, extended the period for repayment of costs for construction and for rehabilitation and betterment work and established a variable repayment formula.

CONTRACTS

- 1906, June 27: Original first contract for project construction. Joint contract between United States and Elephant Butte Water Users Association, El Paso Valley Water Users Association.
- 1917, December 29: Construction of drainage works and works for the distribution and delivery of water for irrigation purposes and payment of construction and operation and maintenance charges. United States of America, El Paso Valley Water Users Association, El Paso County Water Improvement District No. 1 (limited interim contract, superseded by contract dated January 17, 1920).
- 1920, January 17: Contract IIR-348 for construction of drainage works and works for the distribution and delivery of water for irrigation purposes and payment of construction and operation and maintenance charges. United States of America, El Paso Valley Water Users Association, El Paso County Water Improvement District No. 1 (dissolution of El Paso Valley Water Users Association). Sets construction liability at \$4,941,000.
- 1922, July 1: Assignment to the District of certain water accounts.
- 1922, October 12: Additional construction work. District assumed additional construction obligation of \$1,165,000.
- 1926, August 2: Construction of additional irrigation works—Riverside canal construction. Funds for construction advanced by District. Construction cost not applicable to repayments as provided by Public Law 264, 69th Congress, act of May 25, 1926.
- 1928, July 16: Amendments to existing contracts for construction repayment (fixing charge at \$3.60 per acre).
- 1929, September 3: Construction of additional drainage works and crediting of certain revenues. Funds advanced by District.
- 1931, June 10: Providing for the irrigation of the United States detention farm, Bureau of Prisons. Interdepartmental agreement, Department of Justice, Department of the

Interior. Approved, El Paso County Water Improvement District No. 1. Provides for operation and maintenance and construction payments on 400 acres of land by Department of Justice.

1932, November 2: Construction of additional drainage works with contributed funds and providing for crediting of revenues (extends contract of September 3, 1929).

1937, November 10: Contract 11r-981 for adjustment of project construction charges and for other purposes (relinquishment of interest in power development and advancement of operation and maintenance funds). Reduced construction charges payable in fixed semiannual installments, period of repayment extended to 40 years. Total adjusted reduction, \$1,835,544, resulting from relinquishment of power rights. Increased obligation \$175,655 for funded operation and maintenance and interest and penalties. Provided for District to advance funds for operation and maintenance operations.

1938, February 16: Providing for a 3-percent cushion on the irrigable area as allocated to the districts, Elephant Butte Irrigation District, El Paso County Water Improvement District No. 1.

1939, February 2: Construction of additional works with contributed funds and providing for crediting of certain revenues (storage charges).

1939, October 1: Adjusting period for payment of construction charges. (Repayment period extended to 40 years exclusive of years of moratorium on construction charges, 1931 to 1935, inclusive.)

1954, October 21: Supplemental contract, providing for de-

ferment of construction charges payable in calendar year 1955.

1955, September 9: Supplemental contract, providing for deferment of construction charges payable in calendar year 1956.

1956, September 5: Supplemental contract, providing for deferment of construction charges payable in 1957.

1957, November 1: Supplemental contract, providing for deferment of construction charges payable in 1958.

1959, May 15: Contract 14-06-500-375, for rehabilitation and betterment of irrigation works of Rio Grande project in the State of Texas. Maximum obligation not to exceed \$2,300,000. Annual installments of \$133,860. Can elect variable formula.

1964, August 31: Contract 14-06-500-1017, providing for deferment of construction charges in calendar year 1965.

1965, September 28: Contract 14-06-500-1175, providing for deferment of \$71,393 of calendar year 1966 construction payment.

1966, November 16: Contract 14-06-500-1351, providing for variable repayment formula pursuant to the act of Congress dated August 23, 1966.

Summary of status of repayment contracts for the El Paso County Water Improvement District No. 1:

Total value of contracted repayment	\$6,708,221
Total matured charges	4,006,172
Total matured charges repaid	4,006,172
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—EL PASO COUNTY WATER IMPROVEMENT DISTRICT No. 1

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921	\$3,150,000							
1922	3,150,000							
1923	3,150,000	\$31,500		\$31,500	\$31,500		\$31,500	\$31,500
1924	3,150,000	108,515		108,515	108,515		108,515	140,015
1925	6,030,000	89,330		89,330	89,330		89,330	229,345
1926	6,030,000	101,886		101,886	101,826		101,826	331,171
1927	6,030,000	164,700		164,700	134,247		134,247	465,418
1928	6,030,000	180,360		180,360	25,000	\$30,453	55,453	520,871
1929	6,030,000	193,500		193,500	25,000	155,420	180,420	701,291
1930	6,030,000	212,400		212,400	142,825	167,185	310,010	1,011,301
1931	6,030,000	211,860		211,860	172,785	70,890	243,675	1,254,976
1932	6,066,000	¹ 36,000		36,000	36,000	39,075	75,075	1,330,051
1933	6,039,311	(¹)		0			0	1,330,051
1934	5,745,319	(¹)		0			0	1,330,051
1935	5,745,319	(¹)		0			0	1,330,051
1936	5,737,319	(¹)		0			0	1,330,051
1937	5,727,319	¹ 115,425		115,425	113,883		113,883	1,443,934
1938	² 4,457,071	60,177		60,177	60,177	1,542	61,719	1,505,653
1939	4,457,071	123,077		123,077	123,077		123,077	1,628,730
1940	4,457,071	109,609		109,609	109,609		109,609	1,738,339
1941	4,457,071	98,863		98,863	98,863		98,863	1,837,202
1942	4,457,071	98,863		98,863	98,863		98,863	1,936,065
1943	4,457,071	98,863		98,863	98,863		98,863	2,034,928
1944	4,457,071	98,863		98,863	98,863		98,863	2,133,791
1945	4,457,071	98,863		98,863	98,863		98,863	2,232,654
1946	4,457,071	98,863		98,863	98,863		98,863	2,331,517
1947	4,457,071	98,863		98,863	98,863		98,863	2,430,380
1948	4,457,071	98,863		98,863	98,863		98,863	2,529,243
1949	4,457,071	98,863		98,863	98,863		98,863	2,628,106
1950	4,457,071	98,863		98,863	98,863		98,863	2,726,969
1951	4,457,071	98,863		98,863	98,863		98,863	2,825,832
1952	³ 4,446,111	98,863	-\$10,960	87,903	98,863	-10,960	87,903	2,913,735
1953	4,446,111	98,863		98,863	98,863		98,863	3,012,598
1954	4,446,111	98,863		98,863	98,863		98,863	3,111,461
1955	4,446,111	49,431	(⁴)	49,431	49,431		49,431	3,160,892
1956	4,446,111		(⁴)					3,160,892
1957	4,446,111		(⁴)					3,160,892
1958	4,446,111		(⁴)					3,160,892
1959	6,746,111	49,432		49,432	49,432		49,432	3,210,324
1960	6,746,111	98,863		98,863	98,863		98,863	3,309,187
1961	6,746,111	98,863		98,863	98,863		98,863	3,408,050
1962	6,746,111	98,863		98,863	98,863		98,863	3,506,913
1963	6,746,111	98,863		98,863	98,863		98,863	3,605,776
1964	6,746,111	98,863		98,863	98,863		98,863	3,704,639
1965	6,746,111	49,431	(⁴)	49,431	49,431		49,431	3,754,070
1966	6,746,111		(⁴)					3,754,070
1967	6,708,221	112,665		112,665	112,665		112,665	3,866,735
1968	6,708,221	78,330		78,330	78,330		78,330	3,945,065
1969	6,708,221	61,107		61,107	61,107		61,107	4,006,172
Total		4,017,132	-10,960	4,006,172	3,552,567	453,605	4,006,172	

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$221,251; 1932, \$219,403; 1933, \$218,520; 1934, \$221,580; 1936, \$115,425.

² Decrease in obligation due to provisions of 1937 contract.

³ To remove from El Paso County Water Improvement District No. 1's accounts an amount of \$10,960, applicable to the Department of Justice, La Tuna prison farm collections of 1931.

⁴ Supplemental contracts prepared under Secretary's authority deferring calendar year 1955, 1956, 1957, 1958, and 1965 installments; also \$71,393 of calendar year 1966 installment.

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—EL PASO COUNTY WATER IMPROVEMENT DISTRICT No. 1

Fiscal year	Accruals	Collections
1921		
1922	\$87,724	\$87,724
1923	92,968	92,968
1924	98,428	91,297
1925	96,997	104,128
1926	142,412	100,000
1927	155,300	150,326
1928	164,628	174,014
1929	164,918	180,000
1930	159,092	141,023
1931	162,200	188,374
1932	181,133	142,201
1933	141,597	157,342
1934	121,785	142,769
1935	137,699	136,866
1936	143,351	116,000
1937	144,412	135,200
1938	112,349	166,761
1939	167,980	167,980
1940	135,625	135,625
1941	160,000	160,000
1942	162,954	162,954
1943	166,000	166,000
1944	222,978	222,616
1945	197,252	197,614
1946	240,000	240,000
1947	266,000	266,000
1948	289,000	289,000
1949	345,000	345,000
1950	350,000	350,000
1951	400,000	400,000
1952	405,000	405,000
1953	448,000	448,000
1954	465,000	465,000
1955	419,540	419,540
1956	352,000	352,000
1957	328,000	328,000
1958	407,294	407,294
1959	482,812	482,812
1960	456,000	456,000
1961	459,907	459,907
1962	468,702	468,702
1963	471,888	471,888
1964	494,905	494,905
1965	501,228	501,228
1966	509,811	509,811
1967	515,000	515,000
1968	544,360	544,360
1969	565,992	565,992
Total	13,705,221	13,705,221

ELEPHANT BUTTE POWER AND STORAGE DIVISION

The total estimated cost of the Elephant Butte Power and Storage division is \$17,261,840. Of this total estimated cost, \$14,742,190 is reimbursable. Under terms of contracts signed with both irrigation districts in 1937, the obligation to repay the reimbursable cost of Elephant Butte Dam was transferred from the districts to the Elephant Butte Power and Storage division.

RIO GRANDE RIVER RECTIFICATION PROJECT

The Rio Grande River rectification project was a project constructed under the direction of the International Boundary and Water Commission of the State Department to rectify the channel of the Rio Grande mainly to stabilize the boundary between the United States and Mexico. The purpose of the Bureau of Reclamation portion of the project was to relocate and otherwise make changes in the Rio Grande project irrigation and drainage facilities required in connection with the Rio Grande River rectification project of the International Boundary and Water Commission. The project was financed with PWA funds transferred to the Interior Department from the State Department's allotment of such funds for the Rio Grande River rectification project.

The work involved alterations to river inlets and outlets in connection with the Rio Grande project irrigation and drainage facilities required by the river rectification work. The work was performed in the period from 1935 to 1938.

The total actual cost of the Bureau of Reclamation portion of the project is \$180,628.23.

The works constructed in connection with Bureau of Reclamation portion of this project are all operated by the United States with funds advanced by the water users.

MAJOR POWER CONTRACTS—RIO GRANDE PROJECT

Customer	Contract number	Contract date ¹	Termination date	Present contract rate of delivery (kilowatts)
City of Truth or Consequences	14-06-500-1155	Aug. 24, 1965	Mar. 31, 1985	1,900 firm
Department of the Air Force, Holloman Air Force Base	14-06-500-276	June 1, 1957	Dec. 31, 1973	1,500 firm
Department of the Army, White Sands Missile Range	14-06-500-275	July 1, 1957	Dec. 31, 1973	1,000 firm
Plains Electric Generation and Transmission Cooperative, Inc.	14-06-500-1120	May 17, 1965	June 30, 1988	19,600 firm, plus excess nonfirm.
Pooling contract Community Public Service Co. El Paso Electric Co. Plains Electric Generation and Transmission Cooperative, Inc. Public Service Co. of New Mexico.	14-06-500-1605	Oct. 2, 1969	Oct. 2, 1994	

¹ Contracts in effect as of Jan. 31, 1970.

PAYOUT STUDY—IRRIGATION—RIO GRANDE PROJECT

Fiscal year	Net revenue from irrigation water users			Investment repayment	
	Elephant Butte irrigation district	El Paso County water improvement district	Total	Irrigation cost at end of year	Interest-free balance to be repaid ²
1940 (cumulative)	\$2,279,452	\$1,738,339	\$4,017,791	\$10,181,045	\$6,126,332
1941	124,322	98,863	223,185	10,298,543	5,903,147
1942	124,322	98,863	223,185	10,519,952	5,679,962
1943	124,322	98,863	223,185	10,546,528	5,456,777
1944	124,321	98,863	223,184	10,552,086	5,233,593
1945	124,322	98,863	223,185	10,554,402	5,010,408
1946	124,322	98,863	223,185	10,553,526	4,787,223
1947	124,322	98,863	223,185	10,554,242	4,564,038
1948	124,322	98,863	223,185	10,553,831	4,340,853
1949	124,321	98,863	223,184	10,554,136	4,117,669
1950	124,322	98,863	223,185	10,554,282	3,894,484
1951	124,322	98,863	223,185	10,554,494	3,671,299
1952	124,322	87,903	212,225	10,921,836	3,459,074
1953	124,322	98,863	223,185	10,996,714	3,235,889
1954	124,322	98,863	223,185	10,909,105	3,012,704
1955	62,161	49,431	111,592	10,933,016	2,901,112
1956	0	0	0	10,932,178	2,901,112
1957	0	0	0	10,939,486	2,901,112
1958	0	0	0	11,046,203	2,901,112
1959	62,161	49,432	111,593	11,062,132	2,789,519
1960	124,322	98,863	223,185	11,560,180	2,566,334
1961	124,322	98,863	223,185	12,117,779	2,343,149
1962	124,322	98,863	223,185	12,663,290	2,119,964
1963	124,321	98,863	223,184	13,107,971	1,896,780
1964	124,322	98,863	223,185	13,899,848	3,935,709
1965	124,321	49,431	173,752	14,182,608	3,761,958
1966	124,292		124,292	14,146,353	3,637,661
1967	124,305	112,665	236,970	14,297,555	3,400,691
1968	124,308	78,330	202,638	14,194,962	3,198,058
1969	124,382	61,107	185,489	14,227,124	3,012,564
Subtotal	5,387,497	4,006,172	9,393,669		
1970	124,322	(¹)	(¹)	14,227,124	
1971	124,322	(¹)	(¹)	14,227,124	
1972	61,871	(¹)	(¹)	14,227,124	
1973					

¹ Variable repayment.² Includes rehabilitation and betterment, beginning in fiscal year 1963.

PAYOUT STUDY—POWER—RIO GRANDE PROJECT

Fiscal year	Net revenue	Annual change in reserve for depreciation	Repayment commercial power		Total electric plant investment end of year	Interest free irrigation plant	
			Principal	Balance to be repaid		Required aid	Balance to be repaid
1940				\$2,827,468	\$2,827,468	\$3,352,195	
1941	\$166,805		\$166,805	3,266,117	3,432,922	3,352,195	
1942	198,960		198,960	3,534,095	3,899,860	3,352,195	
1943	264,622		264,622	3,322,417	3,952,804	3,352,195	
1944	264,274		264,274	3,173,133	4,067,794	3,352,195	
1945	178,273		178,273	3,009,902	4,082,836	3,352,195	
1946	219,200		219,200	3,128,923	4,421,057	3,352,195	
1947	123,805		123,805	3,351,159	4,767,098	3,368,220	\$3,368,220
1948	95,808		95,808	3,598,011	5,109,758	3,430,769	3,430,769
1949	161,138		161,138	4,278,084	5,950,969	3,430,769	3,430,769
1950	23,322		23,322	4,620,293	6,316,500	3,490,794	3,490,794
1951	-113,480		-113,480	5,030,787	6,613,514	3,637,808	3,637,808
1952	-146,436		-146,436	6,371,399	7,807,690	3,943,738	3,943,738
1953	-101,134		-101,134	7,553,402	8,888,558	3,948,199	3,948,199
1954	-217,779		-217,779	7,830,451	8,947,829	3,994,794	3,994,794
1955	-304,895		-304,895	8,831,228	9,643,711	3,995,517	3,995,517
1956	-214,792		-214,792	9,074,445	9,672,136	3,995,355	3,995,355
1957	-371,787		-371,787	9,742,529	9,968,433	4,003,751	4,003,751
1958	-164,422		-164,422	9,807,176	9,868,658	4,008,287	4,008,287
1959	-75,182		-75,182	9,924,688	9,910,988	4,012,521	4,012,521
1960	-122,480		-122,480	10,062,651	9,926,471	4,006,137	4,006,137
1961	-224,679		-224,679	10,294,850	9,933,991	4,006,137	4,006,137
1962	-176,127		-176,127	10,468,813	9,931,827	4,008,176	4,008,176
1963	-380,803	\$1,305,912	925,109	9,634,243	10,022,366	4,193,585	4,193,585
1964	-473,817	181,625	-292,192	9,927,735	10,023,666	4,194,883	4,194,883
1965	-524,411	182,654	-341,757	10,272,167	10,026,341	4,194,349	4,194,349
1966	15,677	-116,488	-100,811	10,391,065	10,044,428	4,194,349	4,194,349
1967	-367,687	118,844	-248,843	10,639,990	10,044,510	4,194,349	4,194,349
1968	-395,194	110,346	-284,848	10,944,178	10,063,850	4,231,009	4,231,009
1969	-378,341	33,443	-344,898	11,267,142	10,041,916	4,224,016	4,224,016
Subtotal	-3,041,562	1,816,336	-1,225,226	11,267,142	10,041,916	4,224,016	4,224,016
1970	-554,269	121,052	-433,217	12,139,057	10,480,614	4,224,016	4,224,016
1971	-556,833	124,574	-432,259	12,597,916	10,507,214	4,224,016	4,224,016
1972	-293,918	130,486	-163,432	12,761,348	10,507,214	4,224,016	4,224,016
1973	-166,631	127,401	-39,230	12,800,578	10,507,214	4,224,016	4,224,016
1974	-158,133	130,223	-27,910	12,828,488	10,507,214	4,224,016	4,224,016
1975	-148,629	124,130	-24,499	12,852,987	10,507,214	4,224,016	4,224,016
1976	-138,041	138,853	812	12,852,175	10,507,214	4,224,016	4,224,016
1977	-126,296	128,019	1,723	12,850,452	10,507,214	4,224,016	4,224,016
1978	-113,313	121,860	8,547	12,841,905	10,507,214	4,224,016	4,224,016
1979	-98,998	125,515	26,517	12,815,388	10,507,214	4,224,016	4,224,016
1980	-95,893	109,281	13,388	12,802,000	10,507,214	4,224,016	4,224,016
1981	-98,769	123,559	24,790	12,777,210	10,507,214	4,224,016	4,224,016
1982	-101,732	131,266	29,534	12,747,676	10,507,214	4,224,016	4,224,016
1983	-104,784	135,204	30,420	12,717,256	10,507,214	4,224,016	4,224,016
1984	-107,928	133,260	25,332	12,691,924	10,507,214	4,224,016	4,224,016
1985	-111,166	138,258	27,092	12,664,832	10,507,214	4,224,016	4,224,016
1986	-114,501	152,406	37,905	12,626,927	10,507,214	4,224,016	4,224,016
1987	-117,936	141,978	24,042	12,602,885	10,507,214	4,224,016	4,224,016
1988	-121,474	144,237	22,763	12,580,122	10,507,214	4,224,016	4,224,016
1989	-125,119	157,565	32,446	12,547,676	10,507,214	4,224,016	4,224,016
1990	-128,871	145,291	16,420	12,531,256	10,507,214	4,224,016	4,224,016
1991	-132,738	179,650	46,912	12,484,344	10,507,214	4,224,016	4,224,016
1992	-136,720	175,040	38,320	12,446,024	10,507,214	4,224,016	4,224,016
1993	-140,822	184,291	43,469	12,402,555	10,507,214	4,224,016	4,224,016
1994	-145,047	180,820	35,773	12,366,782	10,507,214	4,224,016	4,224,016
1995	-149,397	171,244	21,847	12,344,935	10,507,214	4,224,016	4,224,016
1996	-153,880	184,382	30,502	12,314,433	10,507,214	4,224,016	4,224,016
1997	-158,496	191,913	33,417	12,281,016	10,507,214	4,224,016	4,224,016
1998	-163,251	202,671	39,420	12,241,596	10,507,214	4,224,016	4,224,016
1999	-168,149	213,751	45,602	12,195,994	10,507,214	4,224,016	4,224,016
2000	-173,193	190,163	16,970	12,179,024	10,507,214	4,224,016	4,224,016
2001	-178,389	230,868	52,479	12,126,545	10,507,214	4,224,016	4,224,016
2002	-183,740	227,794	44,054	12,082,491	10,507,214	4,224,016	4,224,016
2003	-189,253	229,628	40,375	12,042,116	10,507,214	4,224,016	4,224,016
2004	-194,930	236,517	41,587	12,000,529	10,507,214	4,224,016	4,224,016
2005	-200,778	230,612	29,834	11,970,695	10,507,214	4,224,016	4,224,016

PAYOUT STUDY—POWER—RIO GRANDE PROJECT—Continued

Fiscal year	Net revenue	Annual change in reserve for depreciation	Repayment commercial power		Total electric plant investment end of year	Interest free irrigation plant	
			Principal	Balance to be repaid		Required aid	Balance to be repaid
2006-----	-206,802	248,531	41,729	11,928,966	10,507,214	4,224,016	4,224,016
2007-----	-213,006	242,987	29,981	11,898,985	10,507,214	4,224,016	4,224,016
2008-----	-219,396	275,276	55,880	11,843,105	10,507,214	4,224,016	4,224,016
2009-----	-225,978	273,535	47,557	11,795,548	10,507,214	4,224,016	4,224,016
2010-----	-232,757	231,741	-1,016	11,796,564	10,507,214	4,224,016	4,224,016
2011-----	-239,740	283,693	43,953	11,752,611	10,507,214	4,224,016	4,224,016
2012-----	-246,932	282,204	35,272	11,717,339	10,507,214	4,224,016	4,224,016
2013-----	-254,340	240,670	-13,670	11,731,009	10,507,214	4,224,016	4,224,016
2014-----	-261,970	307,890	45,920	11,685,089	10,507,214	4,224,016	4,224,016
2015-----	-261,453	318,750	57,297	11,627,792	10,507,214	4,224,016	4,224,016
2016-----	55,393	13,623	69,016	11,558,776	10,507,214	4,224,016	4,224,016
2017-----	42,464	13,623	56,087	11,502,689	10,507,214	4,224,016	4,224,016
2018-----	24,146	13,623	37,769	11,464,920	10,507,214	4,224,016	4,224,016
2019-----	-4,721	13,623	8,902	11,456,018	10,507,214	4,224,016	4,224,016
2020-----	40,546	13,623	54,169	11,401,849	10,507,214	4,224,016	4,224,016
2021-----	32,172	13,623	45,795	11,356,054	10,507,214	4,224,016	4,224,016
Total-----	-11,265,953	10,417,113	-848,840	11,356,054	10,507,214	4,224,016	4,224,016

RIVERTON PROJECT

WYOMING

The Riverton project is situated in the Wind River Basin in Fremont County, north of the city of Riverton, in central Wyoming. The First and Second divisions of the project, included in the Midvale Irrigation District, comprise the southern part of the project, and the Third division, a portion comprising the Third Division Irrigation District, makes up the northern part of the project.

The Riverton project was authorized for construction by the Secretary of the Interior on June 19, 1918, under terms of the Indian Appropriations Act for the fiscal year 1919, approved on May 25, 1918. By act of June 5, 1920 (41 Stat. 874), the project was placed under the jurisdiction of the Bureau of Reclamation.

The Riverton Extension unit of the Missouri River Basin project, cited in Senate Document 191 (78th Congress, 2d session), includes the portion of the Riverton project which is now designated as the Third division. The Riverton Extension unit was authorized in section 9(a) of the Flood Control Act of December 22, 1944 (58 Stat. 887). However, construction was not initiated under that authorization because Missouri River Basin project funds were not yet available when Reclamation homesteads for returning World War II veterans were in demand, whereas Riverton project funds were available at the time.

On September 27, 1918, the Secretary of the Interior

withdrew from public entry a large portion of the lands of the Wind River Reservation ceded by the Shoshone and Arapahoe Tribes of Indians to the United States for disposal under an agreement of April 21, 1904, ratified on March 3, 1905. This withdrawal was made under Reclamation laws reserving the lands for the Riverton project and was continued until some 332,000 acres were reserved. The Indians were compensated under terms of the act of March 4, 1921, at \$1.50 per acre for some 100,000 acres of the reserved land that was opened to homestead entry. 70,500 acres outside the boundaries of the project were restored to tribal ownership and a payment of \$1,009,500 was made to the tribes for the remaining 161,500 acres under provisions of the act of August 15, 1953. These lands were restored to public domain for administration, use, occupancy, and disposal under the Reclamation and public land laws of the United States. Approximately 7,500 acres are inundated by Ocean Lake and Pilot Butte Reservoirs, project water storage facilities. Additional acreage is in use for canal, lateral, and drainage right-of-way. Approximately 31,433 acres had been sold at June 30, 1969, under the Small Tracts Act of March 31, 1950. Revenues from these sales plus net rental revenues have reduced the net cost to \$707,193 at that date. These costs are nonreimbursable to the project.

REPAYMENT OF RECLAMATION PROJECTS

STATEMENT OF PROJECT COST AND REPAYMENT

	Project total	IRRIGATION					Power
		Midvale Irrigation District	Third division ¹	Cottonwood and Muddy Ridge ¹	Other	Power revenues	
<i>Costs</i>							
Plant, property, and equipment:							
Multipurpose plant-----	\$2,954,460	\$1,314,967	\$411,889	\$921,468		\$306,136	
Irrigation plant-----	20,117,247	8,378,926	6,440,894	5,297,427			
Electric plant-----	453,169						\$453,169
Construction work in progress-----	592,254		103,858	431,139			57,257
Estimated cost to complete-----	2,743						2,743
Other physical property-----	4,293,903				\$4,293,903		
Subtotal-----	28,413,776	9,693,893	6,956,641	6,650,034	4,293,903	306,136	513,169
Corollary construction costs:							
Investigations-----	25,992		25,992				
Transitional development-----	1,246,990	216,571	754,179	276,240			
Nonreimbursable expense-----	116,501	116,501					
Deferred maintenance-- R&B-----	125,362	125,362					
Property transfers-----	113,000	113,000					
Subtotal-----	1,627,845	571,434	780,171	276,240			
Total cost-----	30,041,621	10,265,327	7,736,812	6,926,274	4,293,903	306,136	513,169
Other charges:							
O&M deficit-----	353,207	353,207					
Total-----	30,394,828	10,618,534	7,736,812	6,926,274	4,293,903	306,136	513,169
<i>Repayment and other credits</i>							
Repayment realized:							
Repayment contracts matured-----	1,379,718	1,379,718					
Shoshone and Arapahoe Indian lands-----	566,465				566,465		
Contributions-----	13,882	13,882					
Other income-----	630,126				92,029	137,207	400,890
Other repayment-----	49,094	49,094					
Reserve for depreciation-----	72,273		19,994				52,279
Subtotal-----	2,711,558	1,442,694	19,994		658,494	137,207	453,169
Anticipated future repayment:							
Repayment contracts unmatured-----	8,310,731	8,310,731					
Contracts under negotiation-----	14,606,935		7,680,661	6,926,274			
Shoshone and Arapahoe Indian lands-----	3,621,380				3,621,380		
Other income-----	355,459					311,194	44,265
Increase in reserve for depreciation-----	25,900		10,165				15,735
Subtotal-----	26,920,405	8,310,731	7,690,826	6,926,274	3,621,380	311,194	60,000
Total repayment-----	29,631,963	9,753,425	7,710,820	6,926,274	4,279,874	448,401	513,169
Other credits:							
Nonreimbursable land costs-----	106,058				106,058		
Nonreimbursable expense-----	116,501	116,501					
Repayment reductions authorized-----	806,480	806,480					
Nonreimbursable costs-----	25,992		25,992				
Subtotal-----	1,055,031	922,981	25,992		106,058		
Total repayment and other credits-----	30,686,994	10,676,406	7,736,812	6,926,274	4,385,932	448,401	513,169
Surplus-----	292,166	57,872			92,029	142,265	

¹ Public Law 88-278, Mar. 10, 1964, 78 Stat. 156.

FIRST AND SECOND DIVISIONS MIDVALE IRRIGATION DISTRICT

The Midvale Irrigation District consists of the older portions of the project which were essentially completed prior to World War II, the Pilot Extension area at the extreme east end of the Midvale District, plus the Lost Wells area which lies about in the center of the District. The latter two areas were developed and settled soon after the end of World War II. The irrigable acreage for service in the Midvale District is 45,547 acres. During the 1969 crop year, 43,584 acres were irrigated, producing crops valued at \$3,457,414 at an average of \$79.33 per acre irrigated. From 1925 to 1969, gross crop values amount to \$63,285,540.

The total cost including rehabilitation and betterment of irrigation works and supplemental drainage, allocated to the Midvale Irrigation District as of June 30, 1969, is \$10,265,327. Under terms of the amendatory repayment contract of June 26, 1952, and contract of September 6, 1956, the entire amount is repayable by the irrigation district, except \$738,458 chargeoffs authorized by the act of June 23, 1952 (66 Stat. 151), and \$68,022 by the act of August 13, 1953 (67 Stat. 566). The District had paid \$381,827 as of December 31, 1951, under the original contract. Annual installments are based on the number of acres in each pay class land, except that the District may elect to pay its annual installments according to a variable formula based on changes in farm commodity prices and the agricultural parity ratio. Classes 1 and 2 pay construction charges at the rate of \$2.79 per irrigable acre, class 3 at the rate of \$1.70 per irrigable acre and class 4 at the rate of \$0.68 per irrigable acre.

Under the provision of the Farm Unit Exchange Act of August 13, 1953, 3,283 acres in farm units have been relinquished in exchange for other farm units.

999 acres of this land have been restored to private ownership by amendment or additions to other farm units. The nonreimbursable costs incurred in administering these exchanges were \$68,022 at June 30, 1969.

Operation and maintenance were assumed by the Midvale Irrigation District on January 1, 1951, under terms of an interim operation and maintenance contract. The amendatory repayment contract of June 26, 1952, provides for the District to also operate the joint works, i.e., those irrigation works common to the Midvale Irrigation District, Pilot Butte Powerplant, and the Third division.

CONTRACTS

- 1931, February 12: Contract 11r-629 with Midvale Irrigation District for repayment of construction cost in 40 graduated annual installments.
- 1943, December 13: Contract with Midvale Irrigation District. Contract provides for beginning construction charge repayments on December 31, 1944. Project to be continued on a water-rental basis.
- 1952, June 26: Contract 14-06-600-67 with Midvale Irrigation District. Provides for repayment of adjusted construction charge obligation of \$7,000,000 in annual installments, based on land classification, beginning in 1953. Annual installments to include acres covered by water-service contracts with Indians or their lessees. Base annual construction installments estimated at \$54,180.
- 1956, September 6: Contract 14-06-600-1992 with Midvale Irrigation District. Provides for repayment of monies expended for rehabilitation and betterment work, such sum not to exceed \$2,500,000, in annual installments based on land classification beginning in 1967.

Summary of status of repayment contracts in First and Second divisions:

Total value of contracted repayment	\$9,690,449
Total matured charges	1,379,718
Total matured charges repaid	1,379,718
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY ¹—MIDVALE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1931	\$5,037,971							
1932	5,058,389							
1933	5,075,373							
1934	5,089,766							
1935	5,101,809							
1936	5,116,724							
1937	5,122,915							
1938	5,129,053							
1939	5,125,017							
1940	5,132,624							
1941	5,119,803							
1942	5,127,670							
1943	5,123,272							
1944	5,132,129							
1945	5,120,149	\$37,590		\$37,590	\$26,260		\$26,260	\$26,260
1946	5,101,965	36,974		36,974	36,974	\$11,217	48,191	74,451
1947	5,091,480	36,829		36,829	36,829	113	36,942	111,393
1948	5,090,130	55,329		55,329	55,329		55,329	166,722
1949	5,128,895	58,036		58,036	58,036		58,036	224,758
1950	7,205,914	77,091		77,091	77,091		77,091	301,849
1951	7,339,580	79,979		79,979	79,979		79,979	381,828
1952	² 7,381,827	82,546		82,546	82,546		82,546	464,374
1953	7,381,827	45,183		45,183	45,183		45,183	509,557
1954	7,381,827	44,895		44,895	44,895		44,895	554,452
1955	7,381,827	44,638	³ - \$5,551	39,087	44,638	³ - 5,551	39,087	593,539
1956	7,381,827	44,688	³ - 11,197	33,491	22,344	³ - 11,197	11,147	604,686
1957	⁴ 9,881,827	44,232	³ - 5,812	38,420	44,460	³ - 5,812	38,648	643,334
1958	9,508,987	43,553		43,553	43,553	22,116	65,669	709,003
1959	9,566,755	51,075		51,075	51,075		51,075	760,078
1960	9,620,117	51,427		51,427	51,427		51,427	811,505
1961	9,772,446	53,930		53,930	53,930		53,930	865,435
1962	9,784,279	53,484		53,484	53,484		53,484	918,919
1963	9,669,527	54,416		54,416	54,416		54,416	973,335
1964	9,669,527	54,580		54,580	54,580		54,580	1,027,915
1965	9,679,145	57,603		57,603	57,603		57,603	1,085,518
1966	9,680,281	57,794		57,794	57,794		57,794	1,143,312
1967	9,680,281	78,793		78,793	78,793		78,793	1,222,105
1968	9,690,449	78,793		78,793	78,793		78,793	1,300,898
1969	9,690,449	78,820		78,820	78,820		78,820	1,379,718
Total		1,402,278	-22,560	1,379,718	1,368,832	10,886	1,379,718	

¹ Includes rehabilitation and betterment.² Amendatory repayment contract of June 26, 1952, established a construction obligation of \$7,000,000; prior payments totaled \$381,827.³ Credits represent reduction of construction obligation due to farm unit exchanges (sec. 3, Public Law 258, 83d Congress).⁴ R&B contract, \$2,500,000.

THIRD DIVISION

The Third division of the project as originally planned consisted of five distinct areas, namely: (1) North Pavillion, (2) North Portal, (3) Cottonwood Bench, (4) Muddy Ridge, and (5) North Muddy Ridge. The last three areas containing 37,211 acres have been dropped from the present plan of development and 4,832 acres of the first two areas have been classified as nonirrigable. The present Third division now contains 11,831 acres of irrigable lands in the North Pavillion and North Portal areas. Of this, 8,913 acres are capable of sustained productivity without further development. The remaining 2,918 acres will require additional development, primarily construction

of drains, before they will be capable of sustained production.

The Third Division Irrigation District was established under court order filed August 29, 1957. A repayment contract was not consummated. The enactment of the act of March 10, 1964 (Public Law 88-278, 78 Stat. 156), authorized negotiation with entrymen on and owners of land within the division for the purchase of their lands and improvements thereon. The lands and improvements of all but one landowner were acquired under this authorization. These lands are currently being farmed by landowners within the Midvale Irrigation District area.

During the 1969 crop year, 8,603 acres were irrigated on the Third division, producing crops valued at \$568,799 or an average of \$66.12 per acre irrigated. Crop values from 1950-69 amount to \$7,654,348.

POWER DIVISION

The construction cost of Riverton allocated to the Power division is \$513,169. The project works included in this allocation are Pilot Butte Powerplant, the small transmission system required to dispose of the power at load centers and to interconnect with the Missouri River Basin project transmission system, and general property associated with power facilities. In addition to the direct power allocation, a share of the cost of certain water supply works of the irrigation plant is assigned to power for repayment. These works are the Bull Lake Reservoir, Wyoming Canal First division, the diversion dam, and the telephone system. The amount so assigned is \$306,136. Construction of all power features is complete. The powerplant, comprised of two 800-kilowatt units, has been in service since 1925.

RIVERTON EXTENSION UNIT, MISSOURI RIVER BASIN PROJECT

Legislation has been introduced to reauthorize the Riverton Extension unit, Missouri River Basin project, and to include therein the entire Riverton project. If such legislation is enacted, the 11,831 irrigable acres of the Third division will become part of the Midvale Irrigation District. The entire acreage purchased under Public Law 88-278 will be sold or otherwise disposed of to private interests and a revised repayment contract will be executed for all lands within the project.

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—WATER RENTALS

Fiscal year	Accruals	Collections
1931-----	\$2,407	\$2,209
1932-----	2,870	2,916
1933-----	4,792	4,821
1934-----	7,660	7,629
1935-----	16,843	16,884
1936-----	23,866	23,771
1937-----	30,548	30,118
1938-----	35,597	35,595
1939-----	44,150	43,975
1940-----	48,566	48,584
1941-----	59,171	58,811
1942-----	45,374	45,966
1943-----	55,865	55,348
1944-----	57,255	56,183
1945-----	66,693	68,283
1946-----	66,153	65,849
1947-----	65,879	65,788
1948-----	76,671	76,536
1949-----	75,882	75,565
1950-----	85,886	86,148
1951-----	30,118	29,895
1952-----	21,691	21,735
1953-----	24,144	24,445
1954-----	24,906	24,414
1955-----	35,319	36,227
1956-----	36,806	36,931
1957-----	43,945	43,105
1958-----	46,177	46,964
1959-----	38,952	39,428
1960-----	49,274	49,670
1961-----	43,045	40,695
1962-----	37,637	37,121
1963-----	33,596	34,921
1964-----	31,079	32,287
1965-----	49,877	49,877
1966-----	49,911	49,911
1967-----	45,804	45,804
1968-----	46,528	46,528
1969-----	46,701	46,701
Total-----	1,607,638	1,607,638

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—RIVERTON PROJECT

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES					Interest free revenues credited to irrigation repayment	IRRIGATION			RECAPITULATION	
	Net operating revenue	Components of net power revenues		Interest bearing			Revenue and repayment	Investment repayment		Revenue	Earned Surplus
		Interest on investment	Excess over interest	Electric plant in service	Balance to be repaid			Costs allocated to irrigation	Balance to be repaid		
1939	\$62,757		\$62,757	\$356,388	\$293,631	---	\$12,369	\$5,559,269	\$5,546,900	\$75,126	---
1940	30,744	\$8,809	21,935	362,247	277,555	---	1,224	5,750,242	5,736,649	31,968	---
1941	25,100	8,327	16,773	367,602	266,137	---	529	5,848,236	5,834,114	25,629	---
1942	34,436	7,984	26,452	373,339	245,422	---	678	5,931,981	5,917,181	35,114	---
1943	19,907	7,363	12,544	373,387	232,926	---	2,356	5,966,288	5,949,132	22,263	---
1944	9,899	6,988	2,911	373,256	229,884	---	965	6,008,497	5,990,376	10,864	---
1945	36,422	6,897	29,525	372,563	199,666	---	38,681	6,061,650	6,004,848	75,103	---
1946	48,502	5,990	42,512	380,287	164,878	---	19,672	6,167,649	6,091,175	68,174	---
1947	64,420	4,946	59,474	391,372	116,489	---	56,527	6,709,942	6,576,941	120,947	---
1948	68,809	3,495	65,314	401,618	61,421	---	97,683	8,320,171	8,089,487	166,492	---
1949	67,615	1,843	65,772	410,171	4,202	---	26,230	9,525,503	9,268,589	93,845	---
1950	20,784	126	20,658	410,520		\$16,107	92,666	9,525,503	9,175,923	97,343	---
1951	8,100		8,100	410,529		8,091	88,861	14,885,736	14,447,295	88,870	---
1952	32,373		32,373	423,298		19,604	104,374	17,070,528	16,527,713	117,143	---
1953	1,558		1,558	435,373	13,633	---	647,285	19,198,818	18,008,718	645,727	---
1954	14,512	409	14,103	466,121	30,278	---	46,004	20,051,536	18,815,432	60,516	---
1955	1,544	908	2,452	463,953	30,562	---	25,058	22,031,693	20,770,531	23,514	---
1956	8,278	917	7,361	472,293	31,541	---	66,636	22,223,765	20,895,967	74,914	---
1957	15,161	946	14,215	480,066	25,099	---	36,883	22,710,434	21,345,753	52,044	---
1958	615	753	1,398	475,891	22,322	---	422,952	22,968,092	21,180,459	422,307	---
1959	539	670	1,209	480,623	28,263	---	2,587	23,641,744	21,856,698	3,126	---
1960	1,146	818	1,994	482,097	31,731	---	23,558	24,228,413	22,419,809	22,412	---
1961	7,803	952	8,755	483,061	41,450	---	84,477	24,314,936	22,590,809	92,280	---
1962	14,230	1,214	12,986	453,911		686	56,067	24,238,362	22,458,168	69,611	---
1963	37,810		105,293	422,721		136,483	220,346	24,513,412	22,512,872	121,673	---
1964	67,787		67,787	428,092		62,416	319,027	24,966,564	22,646,997	324,398	---
1965	10,088		10,088	428,092		10,088	53,644	25,022,054	22,648,843	53,644	---
1966	15,633		15,633	420,241		7,782	71,882	25,074,546	22,629,453	64,031	---
1967	12,439		12,439	420,241		12,439	61,472	25,075,085	22,568,520	61,472	---
1968	31,373		31,373	420,241		31,373	37,209	25,075,303	22,531,529	37,209	---
1969	2,451		2,451	453,169		35,379	97,123	25,052,759	22,411,862	130,051	---
Total ¹	685,349	2,932	682,417	453,169		229,248	2,640,897	25,052,759	22,411,862	3,096,998	---

¹ Legislation pending to combine Riverton project with Riverton Extension unit as unit of the Missouri River Basin project.

ROGUE RIVER BASIN PROJECT

OREGON

The Talent division of the Rogue River Basin project is located in Jackson County in southwest Oregon. The extension and enlargement of existing facilities, together with construction of new facilities, were authorized by Congress by the act of August 20, 1954 (68 Stat. 752). Agate Dam and Reservoir were authorized by act of Congress on October 1, 1962 (72 Stat. 677).

The primary purposes of the project are to provide both full and supplemental water supplies for lands lying within the Talent Irrigation District, provide

supplemental water for lands in the Medford and Rogue River Valley Irrigation Districts, and to generate electric energy. The project works also provide the area with flood protection, protect and enhance fish and wildlife values, and provide recreation facilities.

The irrigable area for service, the irrigated area, the gross crop value, and average value per irrigated acre for the three irrigation districts in 1969 were as follows:

Irrigation district	Irrigable area for service (acres)	Irrigated area (acres)	Gross crop value	Average value per irrigated acre
Talent	15,231	12,568	\$3,943,173	\$313.75
Rogue River Valley	7,152	6,722	1,588,503	236.31
Medford	10,736	7,065	3,634,885	514.49

The principal project features consist of a canal system for collecting water from streams in the Klamath River and Rogue River basins; Howard Prairie Dam and Reservoir with a capacity of 62,000 acre-feet; a delivery canal from Howard Prairie Dam to Keene Creek; a dam and reservoir on Keene Creek to regulate releases for irrigation from Howard Prairie Reservoir and Hyatt Prairie Reservoir; and Agate Dam and Reservoir on Dry Creek with a capacity of 4,600 acre-feet. Power features constructed as an integral part of the irrigation system consist of the Green Springs Powerplant with installed capacity of 16,000 kilowatts; a conduit and penstock from the Cascade Divide tunnel; and a pressure tunnel through the Cascade Divide from Keene Creek Reservoir in the Klamath River basin to the Rogue River basin. Existing irrigation facilities enlarged or extended consist of the Talent Irrigation District's distribution system and the Emigrant Dam and Reservoir, enlarged to a capacity of 40,000 acre-feet.

All features authorized for construction and rehabilitation have been completed at a total cost of \$29,974,250.

Allocation of costs:

Reimbursable:

Irrigation	\$19,843,779
Power	9,250,319
Subtotal	29,094,098

Nonreimbursable:

Flood control	576,981
Recreation	165,898
Fish and wildlife	137,273
Subtotal	880,152

Total cost ¹	29,974,250
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¹ Including rehabilitation and betterment costs.

Repayment of reimbursable costs:

Irrigation:

Talent Irrigation District	\$5,810,000
Medford Irrigation District	2,439,022

REPAYMENT OF RECLAMATION PROJECTS

Rogue River Valley Irrigation District	1,809,816
Assistance to irrigation from power	9,784,941
Subtotal	19,843,779
Power	9,250,319
Total	29,094,098

Operation and maintenance of the Talent division works has been transferred to the Talent Irrigation District with the exception of Green Springs Powerplant and related facilities which are operated as reserved works by the Bureau.

Repayment contracts.—On August 27, 1956, repayment contract 14-06-100-1045 was executed with the Talent Irrigation District. The contract fixes the District's construction charge obligation at \$5,810,000, with provision for a downward adjustment by the Secretary to an amount not less than \$5,000,000, if such reduction is justified. Repayment of this obligation is to be accomplished in a 60-year period with provisions for reduced annual installments until such time that the District has repaid its existing bonded obligation. The contract includes provisions for adjusting the annual installments by adopting the normal and percentage variable repayment plan if the District board elects to do so. Provisions are also included whereby this repayment plan can be further adjusted by using an appropriate parity factor, with the precise formula to be worked out at time of adoption. The first annual installment shall be due and payable on December 31 of the year following that in which the Secretary notifies the District that project works are substantially completed.

On June 18, 1963, an amendatory contract was executed with the District which includes provisions for a 4-year development period commencing with calendar year 1963. Amendatory contract of June 23, 1967, extended the development period to 7 years. During this development period, the District shall not be required to pay the annual construction charge installments required under the August 27, 1956, repayment contract, but shall pay an annual development period charge that will be applied towards the District's total construction obligation.

Summary of status of repayment contracts:

Total value of contracted repayment	\$10,058,838
Total matured charges	331,864
Total matured charges repaid	331,864
Total matured charges unpaid	0

CONTRACTS

1956, August 27: Contract 14-06-100-1045 with Talent Irrigation District to repay an amount not to exceed \$5,810,000 within a 60-year period. Annual construction charge installments due and payable on December 31.

1963, June 18: Amendatory contract 14-06-100-2985 with Talent Irrigation District, providing for a 4-year development period commencing in calendar year 1963. Annual development period charge of \$22,800 to be paid on or before December 31 of the year for which it is applicable.

1967, June 23: Amendatory contract 14-06-100-5923 with Talent Irrigation District, extending the development period to 7 years, or through December 31, 1969. Annual development period charge remained at \$22,800.

CONSTRUCTION REPAYMENT HISTORY—TALENT DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1964-----	\$8,068,500	\$30,954	-----	\$30,954	\$30,954	-----	\$30,954	\$30,954
1965-----	8,068,500	30,954	-----	30,954	30,954	-----	30,954	61,908
1966-----	8,068,500	30,954	-----	30,954	30,954	-----	30,954	92,862
1967-----	8,068,500	30,954	-----	30,954	30,954	-----	30,954	123,816
1968-----	8,068,500	30,954	-----	30,954	30,954	-----	30,954	154,770
1969-----	8,068,500	30,954	-----	30,954	30,954	-----	30,954	185,724
Total--	-----	185,724	-----	185,724	185,724	-----	185,724	-----

MEDFORD IRRIGATION DISTRICT

In addition to authorizing construction of the Talent division, the act of August 20, 1954 (68 Stat. 752), included a provision for the rehabilitation and betterment of existing irrigation facilities for the Medford Irrigation District.

The principal features rehabilitated, enlarged, or reconstructed include Four-Mile Dam, Fish Lake Dam and the main canal; Medford Canal; Bear Creek Diversion Dam and Canal; and the District's distribution system.

The estimated cost for accomplishing this work is \$1,836,466. In addition to this amount, the District is obligated to repay to the United States an estimated \$603,000 as its portion of the costs allocated to irrigation for the joint works of the Talent division.

Operation and maintenance of the facilities on which the work was accomplished has at all times remained the responsibility of the District.

Repayment contracts.—On August 1, 1955, repayment contract 14-06-100-790 was executed with the Medford Irrigation District. This contract provides for repayment to the United States the actual cost of rehabilitating District works in an amount not to exceed \$1,475,466. Repayment is to be accomplished in a 40-year period, with reduced annual installments being in effect during that period of time that the District is repaying its existing bonded indebtedness. The first annual installment shall be due and payable on December 31 of the year following that in which the Secretary notifies the District that the rehabilitation has been completed. Notice dated October 30, 1968, advised District that R&B costs were determined to be \$1,475,021.77. If the District so elects, the annual installments may be adjusted by adopting the normal and percentage variable repayment plan, and the annual payments will be due on or before March 15 of the year following, rather than the preceding December 31. Repayment period will be completed December 31, 2002.

On July 1, 1958, repayment contract 14-06-100-1541 was executed with the District. Under this contract, the District is obligated to repay a maximum construction charge obligation of \$964,000. This includes an estimated cost of \$361,000 for enlarging and reconstructing District works and \$603,000 as a portion of the costs allocated to irrigation for construction of the joint works of the Talent division. For assuming this portion of the allocated costs, the District is entitled to 8,000 acre-feet of storage space in the reservoir system of the Talent division. Repayment of the obliga-

tion under this contract is to be accomplished within a 60-year period, with reduced annual installments being in effect during that period of time that the District is repaying its existing bonded indebtedness and its rehabilitation and betterment charge obligation under the August 1, 1955, contract with the United States. The first annual installment was due December 31, 1963, following issuance of notice dated December 14, 1962, announcing substantial completion of construction. If the District so elects, the annual installments may be adjusted by adopting the normal and percentage variable repayment plan and the annual payments will be due on or before March 15 of the year following, rather than the preceding December 31. This procedure may be augmented by a further adjustment annually based upon an appropriate parity factor with the precise formula to be worked out at time of adoption. In addition to the construction charge obligation outlined above, the District is obligated to pay to the United States its share of the costs of operating and maintaining the joint works of the Talent division. These payments shall be paid on or before January 15 of the year for which they are due.

CONTRACTS AND PUBLIC NOTICES

- 1955, August 1: Contract 14-06-100-790 with Medford Irrigation District to repay an amount not to exceed \$1,475,466 as the cost of rehabilitating irrigation facilities. Payable in 40 annual installments, with each installment due and payable on December 31.
- 1958, July 1: Contract 14-06-100-1541 with Medford Irrigation District to repay an amount not to exceed \$964,000 as the cost of enlarging and reconstructing District works and a portion of the cost of joint works of the Talent division. Payable in 60 annual installments, with each installment due and payable on December 31. O&M charges on joint works due on or before January 15.
- 1962, September 26: Notice from acting regional director to Medford Irrigation District advising rehabilitation and betterment of joint works under contract of August 1, 1955, has been completed. Initial annual installment due December 31, 1963.
- 1962, December 14: Notice from acting regional director to Medford Irrigation District advising construction work under contract of July 1, 1958, substantially completed. Initial annual installment due December 31, 1963.
- 1968, October 30: Notice to Medford Irrigation District advising actual R&B costs under contract of August 1, 1955, determined to be \$1,475,021.77. 40-year repayment period will be completed December 31, 2002.

ROGUE RIVER VALLEY IRRIGATION DISTRICT

Rehabilitation and betterment of existing irrigation facilities for the Rogue River Valley Irrigation District

was also authorized by the act of August 20, 1954 (68 Stat. 752).

The principal features rehabilitated include Four-Mile Dam, Fish Lake Dam, and the main canal; Hopkins Canal; and the District's distribution system.

The estimated cost for repair, rehabilitation and betterment of these works is \$515,534. In addition to this amount, the District is obligated to repay to the United States an estimated \$301,500 as its portion of the cost allocated to irrigation for construction of joint works of the Talent division.

The total cost of the Agate Dam and associated facilities was \$1,963,991.

Operation and maintenance of the facilities rehabilitated has at all times remained the responsibility of the District.

Repayment contracts.—On August 2, 1955, repayment contract 14-06-100-794 was executed with the Rogue River Valley Irrigation District. This contract provides for repayment to the United States of the actual cost of rehabilitating irrigation facilities in an amount not to exceed \$236,534. Repayment is to be made in 40 equal annual installments, with the first such installment due and payable on December 31 in the year following that in which the Secretary notifies the District that work under the contract has been completed. If the District so elects, the annual installments may be adjusted by adopting the normal and percentage variable repayment plan and the annual payment shall be due on or before March 15 of the year following, rather than the preceding December 31.

On July 16, 1958, repayment contract 14-06-100-1564 was executed with the Rogue River Valley Irrigation District. The maximum construction charge obligation of the District under this contract is \$580,500. This includes an estimated cost of \$279,000 for rehabilitating District facilities and \$301,500 as a portion of the costs allocated to irrigation for construction of joint works of the Talent division. For assuming this portion of the allocated costs, the District is entitled to 4,000 acre-feet of storage space in the reservoir system of the Talent division. The District also receives some 3,000 acre-feet of supplemental water from waste, return flow, and seepage water of the Talent division. Repayment of the obligation under this contract is to be accomplished in a 60-year period with reduced annual installments being in effect during that period of time that the District is repaying its rehabilitation and betterment charge obligation under the August 2, 1955, contract with the United States. The first annual installment was due December 31, 1963, following is-

suance of notice dated December 14, 1962, announcing substantial completion of construction. If the District so elects, the annual installments may be adjusted by adopting the normal and percentage variable repayment plan and the annual payments will be due on or before March 15 of the year following, rather than the preceding December 31. This procedure may be augmented by a further adjustment annually, based upon an appropriate parity factor with the precise formula to be worked out at the time of adoption. In addition to the construction charge obligation outlined above, the District is obligated to pay its share of the costs of operating and maintaining the joint works of the Talent division. These payments shall be made on or before January 15 of the year for which they are due.

On July 2, 1963, repayment contract 14-06-100-3035 was executed with the Rogue River Valley Irrigation District. This contract provides for the repayment of a maximum obligation of \$993,000 towards the cost of Agate Dam and Reservoir and associated features in 50 years, following a 10-year development period. Development period began January 1, 1967. Agate Reservoir has a total capacity of 4,600 acre-feet and will provide a supplemental water supply to 5,020 acres and a full supply to 1,810 acres.

CONTRACTS AND PUBLIC NOTICES

- 1955, August 2: Contract 14-06-100-794 with Rogue River Valley Irrigation District to repay an amount not to exceed \$236,543 as the cost of rehabilitating irrigation facilities. Payable in 40 annual installments with each installment due and payable on December 31.
- 1958, July 16: Contract 14-06-100-1564 with Rogue River Valley Irrigation District to repay an amount not to exceed \$580,500 as the cost of rehabilitating District works and a portion of the cost of joint works of the Talent division. Payable in 60 annual installments with each installment due and payable on December 31.
- 1962, September 26: Notice from acting regional director to Rogue River Valley Irrigation District advising rehabilitation and betterment of joint works under contract of August 2, 1955, has been completed. Initial annual installment due December 31, 1963.
- 1962, December 14: Notice from acting regional director to Rogue River Valley Irrigation District, advising construction work under contract of July 16, 1958, substantially completed. Initial annual installment due December 31, 1963.
- 1963, July 2: Contract 14-06-100-3035 with Rogue River Valley Irrigation District to repay a maximum obligation of \$993,000 towards cost of Agate Dam and Reservoir and appurtenant features in 50 annual installments.
- 1966, June 14: Notice to Rogue River Valley Irrigation District advising 10-year development period will begin January 1, 1967, under contract of July 2, 1963, covering

Agate Dam and Reservoir and appurtenant features. This notice was also formal notification of the District's responsibility to operate and maintain the facilities.

District advising actual R&B costs under contracts of August 2, 1955, and July 16, 1958, determined to be \$236,315.97. Forty-year repayment period will be completed December 31, 2002.

1968, November 4: Notice to Rogue River Valley Irrigation

CONSTRUCTION REPAYMENT HISTORY—REHABILITATION AND BETTERMENT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1964-----	\$1,991,000	\$24,357	-----	\$24,357	\$24,357	-----	\$24,357	\$24,357
1965-----	1,991,000	24,357	-----	24,357	24,357	-----	24,357	48,714
1966-----	1,991,000	24,356	-----	24,356	24,356	-----	24,356	73,070
1967-----	1,991,000	24,357	-----	24,357	24,357	-----	24,357	97,427
1968-----	1,991,000	24,356	-----	24,356	24,356	-----	24,356	121,783
1969-----	1,990,338	24,357	-----	24,357	24,357	-----	24,357	146,140
Total--	-----	146,140	-----	146,140	146,140	-----	146,140	-----

PAYOUT STUDY—ROGUE RIVER BASIN PROJECT

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES					IRRIGATION REVENUES			RECAPITULATION		
	Net revenues	Repayment components of net revenues		Interest bearing commercial electric plant	Interest free aid to irrigation		Net revenues from water users	Interest free irrigation obligation		Net project revenues	Cumulative earned surplus
		Interest, 2.584 percent	Principal		In service end of year	Balance to be repaid		Required aid	Balance to be repaid		
1961-----	\$108,928	0	\$108,928	\$8,188,630	\$8,079,702	\$4,190,986	0	\$9,066,500	\$9,066,500	\$108,928	0
1962-----	258,606	\$208,779	49,827	9,204,097	9,045,342	5,670,894	0	9,066,500	9,066,500	258,606	0
1963-----	412,965	233,492	179,473	9,205,226	8,866,998	5,670,894	0	9,066,500	9,066,500	412,965	0
1964-----	416,642	229,123	187,519	9,228,394	8,702,647	8,528,132	\$55,311	10,059,500	10,004,189	471,953	0
1965-----	433,692	224,876	208,816	9,230,359	8,495,796	8,593,483	55,311	10,059,500	9,948,878	489,003	0
1966-----	363,046	219,531	143,515	9,236,522	8,358,444	8,809,031	55,310	10,059,500	9,893,568	418,356	0
1967-----	349,359	215,982	223,377	9,242,776	8,141,321	8,804,804	55,311	10,059,500	9,838,257	494,670	0
1968-----	428,263	210,372	217,891	9,242,164	7,922,818	9,775,676	55,311	10,059,500	9,782,946	483,574	0
1969-----	346,289	204,726	141,563	9,242,086	7,781,177	9,779,425	55,310	10,058,838	9,726,974	401,599	0
Adjustment-----	(87)									(87)	
Subtotal thru F.Y. 1969-----	3,207,703	1,746,794	1,460,909	9,242,086	7,781,177	9,779,425	331,864	10,058,838	9,726,974	3,539,567	0
1970-----	377,600	201,066	176,534	9,250,319	7,612,876	9,779,425	78,824	10,058,838	9,648,150	456,434	0
1971-----	377,600	196,717	180,883	9,250,319	7,431,993	9,779,425	150,198	10,058,838	9,497,952	527,798	0
1972-----	377,600	192,043	185,557	9,250,319	7,246,436	9,779,425	150,198	10,058,838	9,347,754	527,798	0
1973-----	377,600	187,248	190,352	9,250,319	7,056,084	9,779,425	150,198	10,058,838	9,197,556	527,798	0
1974-----	377,600	182,329	195,271	9,250,319	6,860,813	9,779,425	150,198	10,058,838	9,047,358	527,798	0
1975-----	371,600	177,283	194,317	9,250,319	6,666,496	9,779,425	150,198	10,058,838	8,897,160	521,798	0
1976-----	377,600	172,262	205,338	9,250,319	6,461,158	9,779,425	150,198	10,058,838	8,746,962	527,798	0
1977-----	377,600	166,956	210,644	9,250,319	6,250,514	9,779,425	150,198	10,058,838	8,596,764	527,798	0
1978-----	377,600	161,513	216,087	9,250,319	6,034,427	9,779,425	170,058	10,058,838	8,426,707	547,657	0
1979-----	377,600	155,930	221,698	9,250,319	5,812,757	9,779,425	170,058	10,058,838	8,256,649	547,658	0
1980-----	376,600	150,202	226,398	9,250,319	5,586,359	9,779,425	170,058	10,058,838	8,086,591	546,658	0
1981-----	377,600	144,352	233,248	9,250,319	5,353,111	9,779,425	170,058	10,058,838	7,916,533	547,658	0
1982-----	377,600	138,324	239,276	9,250,319	5,113,835	9,779,425	170,058	10,058,838	7,746,475	547,658	0
1983-----	377,600	132,141	245,459	9,250,319	4,868,376	9,779,425	170,058	10,058,838	7,576,417	547,658	0
1984-----	377,600	125,799	251,801	9,250,319	4,616,575	9,779,425	170,058	10,058,838	7,406,359	547,658	0
1985-----	372,600	119,292	253,308	9,250,319	4,363,267	9,779,425	170,058	10,058,838	7,236,301	542,658	0
1986-----	377,600	112,747	264,853	9,250,319	4,098,414	9,779,425	170,058	10,058,838	7,066,243	547,658	0
1987-----	377,600	105,903	271,697	9,250,319	3,826,717	9,779,425	170,058	10,058,838	6,896,185	547,658	0
1988-----	377,600	98,882	278,718	9,250,319	3,547,999	9,779,425	170,058	10,058,838	6,726,127	547,658	0
1989-----	377,600	91,680	285,920	9,250,319	3,262,079	9,779,425	170,058	10,058,838	6,556,069	547,658	0
1990-----	295,600	84,292	211,308	9,250,319	3,050,771	9,779,425	170,058	10,058,838	6,386,011	465,658	0
1991-----	377,600	78,832	298,768	9,250,319	2,752,003	9,779,425	170,058	10,058,838	6,215,953	547,658	0
1992-----	377,600	71,112	314,408	9,250,319	2,445,515	9,779,425	170,058	10,058,838	6,045,895	547,658	0
1993-----	377,600	63,192	316,408	9,250,319	2,131,107	9,779,425	170,058	10,058,838	5,875,837	547,658	0
1994-----	377,600	55,068	322,532	9,250,319	1,808,575	9,779,425	170,058	10,058,838	5,705,779	547,658	0
1995-----	299,600	46,734	252,866	9,250,319	1,555,709	9,779,425	170,058	10,058,838	5,535,721	469,658	0
1996-----	377,600	40,200	337,400	9,250,319	1,218,309	9,779,425	170,058	10,058,838	5,365,663	547,658	0
1997-----	377,600	31,481	346,119	9,250,319	872,120	9,779,425	170,058	10,058,838	5,195,605	547,658	0
1998-----	377,600	22,537	355,063	9,250,319	517,127	9,779,425	170,058	10,058,838	5,025,547	547,658	0
1999-----	377,600	13,363	364,237	9,250,319	152,890	9,779,425	170,058	10,058,838	4,855,489	547,658	0
2000-----	304,600	3,951	300,649	9,250,319		9,779,425	170,058	10,058,838	4,685,431	474,658	0
2001-----	377,600	0	377,600	9,250,319		9,779,425	170,058	10,058,838	4,515,373	547,658	0
2002-----	377,600	0	377,600	9,250,319		9,779,425	170,058	10,058,838	4,345,315	547,658	0
2003-----	377,600	0	377,600	9,250,319		9,779,425	170,058	10,058,838	4,175,258	547,657	0
2004-----	377,600	0	377,600	9,250,319		9,779,425	170,057	10,058,838	4,003,426	549,432	0
2005-----	343,600	0	343,600	9,250,319		9,779,425	171,832	10,058,838	3,831,594	515,432	0
2006-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	3,659,762	549,432	0
2007-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	3,487,930	549,432	0
2008-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	3,316,098	549,432	0
2009-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	3,144,266	549,432	0
2010-----	278,600	0	278,600	9,250,319		9,779,425	171,832	10,058,838	2,972,434	549,432	0
2011-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	2,800,602	549,432	0
2012-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	2,628,770	549,432	0
2013-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	2,456,938	549,432	0
2014-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	2,285,106	549,432	0
2015-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	2,113,274	549,432	0
2016-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	1,941,442	549,432	0
2017-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	1,769,610	549,432	0
2018-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	1,597,778	549,432	0
2019-----	377,600	0	377,600	9,250,319		9,779,425	171,832	10,058,838	1,425,946	549,432	0
2020-----	292,600	0	292,600	9,250,319		9,779,425	171,832	10,058,838	1,254,114	464,432	0

2021	377,600	0	377,600	9,250,319	0	9,779,425	1,920,066	171,832	10,058,838	1,082,282	549,432	0
2022	377,600	0	377,600	9,250,319	0	9,779,425	1,542,466	171,832	10,058,838	910,450	549,432	0
2023	377,600	0	377,600	9,250,319	0	9,779,425	1,164,866	171,832	10,058,838	738,618	549,432	0
2024	377,600	0	377,600	9,250,319	0	9,779,425	787,266	114,034	10,058,838	624,584	491,634	0
2025	377,600	0	377,600	9,250,319	0	9,779,425	409,066	114,034	10,058,838	510,550	491,634	0
2026	377,600	0	377,600	9,250,319	0	9,779,425	32,066	114,034	10,058,838	396,516	491,634	0
2027	377,600	0	377,600	9,250,319	0	9,779,425	0	114,034	10,058,838	282,482	491,634	\$345,534
2028	0	0	0	9,250,319	0	9,779,425	0	94,174	10,058,838	188,308	94,174	345,534
2029	0	0	0	9,250,319	0	9,779,425	0	94,174	10,058,838	94,134	94,174	345,534
2030	0	0	0	9,250,319	0	9,779,425	0	94,134	10,058,838	0	94,134	345,534
Total	24,645,503	5,270,225	19,375,278	9,250,319	0	9,779,425	0	10,058,838	10,058,838	0	34,704,341	345,534

SALT RIVER PROJECT

ARIZONA

The construction of the Salt River project near Phoenix in Maricopa County, Arizona, was originally authorized by the Secretary of the Interior on March 14, 1903, in accordance with the act of June 17, 1902 (32 Stat. 388). Rehabilitation and betterment of the project works is being accomplished under authority of the act of October 7, 1949 (63 Stat. 724), as amended.

The project was constructed with the objective of furnishing an adequate water supply to the irrigable lands of the Salt River project, which originally encompassed about 242,000 acres. The original project, composed of Roosevelt Storage Dam and Powerplant, Granite Reef Diversion Dam, and the improved main canals, was placed in service in 1910 and completed in 1911. Additional construction was undertaken by the Bureau of Reclamation in 1936 and completed in 1939. Growth and expansion of municipal and industrial developments into the agricultural area has taken place at a phenomenal pace since World War II. As of calendar year 1969, the agricultural acreage actually irrigated with a full water supply from the Salt River project amounted to only 136,701 acres. The gross crop value from this acreage in 1969 totaled \$45,974,249 for an average of \$336.31 per irrigated acre. In addition, 45,916 acres adjacent to the Salt River project received a supplemental supply of water through project facilities in 1969, and produced crops valued at \$17,474,266 for an average of \$380.57 per irrigated acre.

The total actual cost of constructing the Salt River project features was \$20,046,239. Of this amount, \$948,719, or 20 percent of the cost of Bartlett Dam (contract of June 3, 1935), was assumed by the Bureau of Indian Affairs. After adjustment for reduction by the Board of Review in 1918, for revenues received during construction, and for funding interest and

penalties and net operation and maintenance costs, the repayment obligation assumed by the Salt River Valley Water Users' Association was \$17,482,688.

Operation and maintenance of the project was transferred to the Association in accordance with the contract of September 6, 1917.

Repayment contracts.—Repayment of the original construction cost, \$10,937,872, in 20 installments was provided in the contract of September 6, 1917. This contract was amended on June 30, 1930, extending the time for payment of unaccrued charges and reducing annual installments. Final payment under the contracts for original construction cost was made in October 1955. The cost of constructing Bartlett Dam, \$6,544,816, is payable in 40 graduated installments under the contracts of November 26, 1935, and October 2, 1939. Payment will be completed in 1979.

CONTRACTS AND PUBLIC NOTICE

- 1904, June 25: Contract with Salt River Valley Water Users' Association provided for collection and payment of cost of irrigation works apportioned by Secretary to shareholders in not less than 10 equal annual payments.
- 1917, January 18: Public notice. Construction charge, \$60 per acre, payable in 20 graduated annual installments.
- 1917, September 6: Contract 11r-307 with Salt River Valley Water Users' Association. Association assumed obligation to repay construction costs of project, payable in 20 graduated installments.
- 1922, July 26: Association granted extension of time for payment of 1920, 1921, 1922, and 1923 charges.
- 1930, June 30, as amended: Contract with Salt River Valley Water Users' Association. Delinquent 1929, 1930, and 1931 charges to be paid in lump sum of \$1,851,232.60. Remainder of debt scheduled to be paid in 20 years, ending December 1, 1951, in graduated installments.
- 1935, November 26 (11r-819), and 1939, October 2: Contracts with Salt River Valley Water Users' Association to pay construction costs of Bartlett Reservoir. Estimated cost \$6,600,000, payable in 40 graduated annual installments.

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1917	\$2,894,662							
1918	10,166,022	\$203,320		\$203,320	\$203,320		\$203,320	\$203,320
1919	10,166,022	203,321		203,321	203,321		203,321	406,641
1920	10,166,022	203,321		203,321	203,320		203,320	609,961
1921	10,166,022	203,321		203,321			0	609,961
1922	10,166,022	406,640		406,640	756		756	610,717
1923	10,166,022		¹ \$332,962	¹ 332,962		\$276,244	276,244	886,961
1924	10,166,022	809,962		809,962	809,962		809,962	1,696,923
1925	10,166,022	609,961		609,961	609,961		609,961	2,306,884
1926	10,166,022	643,862		643,862	643,862		643,862	2,950,746
1927	10,166,022	645,557		645,557	521		521	2,951,267
1928	10,166,022	647,337		647,337	1,266	645,036	646,302	3,597,569
1929	10,166,022	1,042,691		1,042,691	1,042,691	646,071	1,688,762	5,286,331
1930	10,166,022	609,962		609,962			0	5,286,331
1931	10,166,022	1,219,923		1,219,923	1,219,922	609,962	1,829,884	7,116,215
1932	10,166,022			0			0	7,116,215
1933	10,166,022	² 152,490		152,490			0	7,116,215
1934	10,209,450		¹ 762,452	¹ 762,452		¹ 609,961	¹ 609,961	6,506,254
1935	10,209,450	² 152,490		152,490	152,490		152,490	6,658,744
1936	10,209,450	152,491		152,491	152,491		152,491	6,811,235
1937	10,209,450	152,490		152,490	152,490		152,490	6,963,725
1938	11,189,042	217,797		217,797	217,797		217,797	7,181,522
1939	11,189,042	217,797		217,797	217,797		217,797	7,399,319
1940	11,289,042	³ 50,000		50,000	50,000		50,000	7,449,319
1941	⁴ 17,789,042	³ 282,688		282,688	64,891		64,891	7,514,210
1942	17,721,398	142,209		142,209	65,756	217,797	283,553	7,797,763
1943	17,721,398	311,389		311,389	311,389	76,453	387,842	8,185,605
1944	17,640,791	1,186,776		1,186,776	1,186,776		1,186,776	9,372,381
1945	17,488,233	765,942		765,942	765,942		765,942	10,138,323
1946	17,488,233	131,033		131,033	131,033		131,033	10,269,356
1947	17,488,233	131,033		131,033	131,033		131,033	10,400,389
1948	17,482,688	130,886		130,886	126,878	⁵ \$4,008	130,886	10,531,275
1949	17,482,688	130,886		130,886	130,886		130,886	10,662,161
1950	17,482,688	130,886		130,886	130,886		130,886	10,793,047
1951	17,482,688	130,886		130,886	126,575	⁵ 4,311	130,886	10,923,933
1952	17,482,688	130,886		130,886	128,566	⁵ 2,320	130,886	11,054,819
1953	17,482,688	450,343		450,343	449,056	⁵ 1,287	450,343	11,505,162
1954	17,482,688	450,342		450,342	445,085	⁵ 5,257	450,342	11,955,504
1955	17,482,688	450,343		450,343	450,343		450,343	12,405,847
1956	17,482,688	364,159		364,159	364,159		364,159	12,770,006
1957	17,482,688	196,362		196,362	196,362		196,362	12,966,368
1958	17,482,688	196,361		196,361	196,361		196,361	13,162,729
1959	17,482,688	196,362		196,362	196,362		196,362	13,359,091
1960	17,482,688	196,362		196,362	196,362		196,362	13,555,453
1961	17,482,688	196,362		196,362	196,362		196,362	13,751,815
1962	17,482,688	196,361		196,361	196,361		196,361	13,948,176
1963	17,482,688	196,362		196,362	196,362		196,362	14,144,538
1964	17,482,688	196,362		196,362	196,362		196,362	14,340,900
1965	17,482,688	196,361		196,361	196,361		196,361	14,537,261
1966	17,482,688	196,362		196,362	196,362		196,362	14,733,623
1967	17,482,688	196,362		196,362	196,362		196,362	14,929,985
1968	17,482,688	196,362		196,362	196,362		196,362	15,126,347
1969	17,482,688	196,361		196,361	196,361		196,361	15,322,708
Total		16,418,122	-1,095,414	15,322,708	13,443,923	1,878,785	15,322,708	

¹ Decrease. Decreases cover charges deferred under 1922 contract and under relief acts.

² Moratorium period. Acts of Apr. 1, 1932, and Mar. 3, 1933. Construction charges deferred for calendar years 1931, \$648,063; 1932, \$157,441; 1933, \$152,866.

³ Deferred under act of Aug. 4, 1939, construction charge for 1939, \$167,797, and 1940, \$217,797.

⁴ Increase in obligation caused by addition of obligation for Bartlett Reservoir under 1935 contract.

⁵ Application of miscellaneous revenues pursuant to article 2 of contract of Sept. 6, 1917, between United States and Salt River Valley Water Users' Association.

Rehabilitation and betterment.—In 1950, a rehabilitation and betterment program was begun on the Salt River project pursuant to the act of October 7, 1949 (63 Stat. 724), with the total work program to be accomplished scheduled over a period of several years. The general nature and purpose of the rehabilitation and betterment program are to line certain sections of canals, replace certain laterals with underground pipe, repair and replace certain gates, checks, and other irrigation structures, rehabilitate project water wells, and to undertake repair and betterment work on some of the major storage facilities. Contracts covering such work, under an original \$6 million program, supplemented by a \$10 million congressionally approved extended program, were executed annually between the United States and the Salt River Valley Water Users' Association from the time the program was initiated in 1950 through fiscal year 1958. Beginning July 1, 1958, the rehabilitation and betterment work has been cov-

ered by a single contract, with repayable amounts computed separately for each fiscal year, as indicated in the following tabulation:

REHABILITATION AND BETTERMENT CONTRACTS

Date and number of contract	Total obligation	Amount repaid as of June 30, 1969 ¹
Mar. 29, 1950, 11r-1568 ² -----	\$1,361,451	\$1,172,989
June 26, 1951, 176r-681 -----	1,245,689	1,071,293
Dec. 12, 1951, 176r-705 -----	155,847	134,029
May 21, 1952, 176r-763 -----	988,839	850,402
May 19, 1953, 14-06-300-66 --	740,946	637,213
May 17, 1954, 14-06-300-180 --	642,488	552,539
May 6, 1955, 14-06-300-339 --	563,950	484,997
July 11, 1956, 14-06-300-544 --	985,452	354,762
June 24, 1957, 14-06-300-679 --	1,121,753	370,179
July 1, 1958, 14-06-300-864 --	7,579,206	1,348,530
May 12, 1967, 14-06-300-1932 --	11,614,379	24,961
Total -----	27,000,000	7,001,894

¹ All matured charges paid in full.

² Amended Oct. 26, 1950, and Jan. 2, 1951.

Repayment of the obligation covered by the foregoing contracts of March 29, 1950, through May 6, 1955, inclusive, is scheduled for completion in 1970. Repayment of the obligation covered by subsequent contracts through July 1, 1958, is repayable over a 30-year period, with said 30-year period applicable to each

fiscal year. Repayment of the obligation covered by the contract dated May 12, 1967, is repayable over a 25-year period with this 25-year period applicable to each fiscal year. The program currently is scheduled for completion by June 30, 1977.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1951-----	\$1,361,450	\$2,677	-----	\$2,677	\$2,677	-----	\$2,677	\$2,677
1952-----	2,762,987	81,151	-----	81,151	81,151	-----	81,151	83,828
1953-----	3,751,827	116,656	-----	116,656	116,656	-----	116,656	200,484
1954-----	4,492,773	34,340	-----	34,340	34,340	-----	34,340	234,824
1955-----	5,135,260	143,264	-----	143,264	143,264	-----	143,264	378,088
1956-----	5,699,210	373,669	-----	373,669	373,669	-----	373,669	751,757
1957-----	6,684,662	262,985	-----	262,985	262,985	-----	262,985	1,014,742
1958-----	7,806,415	29,624	-----	29,624	29,624	-----	29,624	1,044,366
1959-----	8,575,494	287,807	-----	287,807	287,807	-----	287,807	1,332,173
1960-----	9,453,953	326,827	-----	326,827	326,827	-----	326,827	1,659,000
1961-----	10,304,258	353,180	-----	353,180	353,180	-----	353,180	2,012,180
1962-----	11,153,069	536,025	-----	536,025	536,025	-----	536,025	2,548,205
1963-----	11,980,800	561,490	-----	561,490	561,490	-----	561,490	3,109,695
1964-----	16,000,000	586,322	-----	586,322	586,322	-----	586,322	3,696,017
1965-----	16,000,000	611,091	-----	611,091	611,091	-----	611,091	4,307,108
1966-----	16,000,000	633,556	-----	633,556	633,556	-----	633,556	4,940,664
1967-----	27,000,000	659,336	-----	659,336	659,336	-----	659,336	5,600,000
1968-----	27,000,000	688,467	-----	688,467	688,467	-----	688,467	6,288,467
1969-----	27,000,000	713,427	-----	713,427	713,427	-----	713,427	7,001,894
Total -----	-----	7,001,894	-----	7,001,894	7,001,894	-----	7,001,894	-----

Cost and repayment summary:

Cost:

Multipurpose plant	\$5,079,212
Irrigation plant	10,700,584
Electric plant	4,266,443

Subtotal plant, property, and equipment 20,046,239

Corollary construction costs:

Deferred maintenance—Rehabilitation and betterment	27,000,000
O&M deficit	115,994
Property transfers	160,250
Settlers assistance costs	31,268

Total construction cost 47,353,751

Interest and penalties funded 771,850

Total 48,125,601

Repayments and other credits:

Repayment contracts	44,482,688
Power revenue	998,411
Miscellaneous income	1,313,686
Bureau of Indian Affairs share of cost of Bartlett Dam	948,719
Other credits ¹	382,097
Total	<u>48,125,601</u>

¹ Costs of \$382,408 declared excess by Board of Review over payment required under contract 11r-307.

Summary of status of repayment contracts:

Total value of contracted repayment	\$44,482,688
Total matured charges	22,324,602
Total matured charges repaid	22,324,602
Total matured charges unpaid	0

SAN ANGELO PROJECT

TEXAS

The construction of San Angelo project, located in westcentral Texas in the Concho River Basin, was authorized by Congress, Public Law 85-152 (71 Stat. 372), August 16, 1957.

The project features include Twin Buttes Dam and Reservoir on the Middle and South Concho Rivers and Spring Creek; an irrigation headworks to divert water from the existing Nasworthy Reservoir which backs up to the Twin Buttes Dam; and an irrigation delivery and distribution system to serve a project area of 10,000 acres. Operation of the Twin Buttes Reservoir was integrated with operation of the existing Nasworthy and San Angelo Reservoirs to provide 29,000 acre-feet annually of municipal and industrial water to the City of San Angelo. The project provides flood protection to San Angelo downstream areas and fish and wildlife and recreational opportunities. Operation of the storage system was transferred to the City of San Angelo January 1, 1966.

The estimated total project cost as of June 30, 1969, is \$25,575,259.

Project cost and repayment:

Cost:	
Twin Buttes Dam and Reservoir	\$21,272,541
Irrigation plant	4,234,246
Recreation facilities	68,472
Plant, property, and equipment	<u>25,575,259</u>
Allocation:	
Reimbursable:	
Municipal and industrial	5,136,222
Irrigation	8,886,332

Land enhancements, flood control	259,636
Subtotal	<u>14,282,190</u>
Nonreimbursable:	
Flood control	8,246,049
Fish and wildlife	2,978,548
Recreation	68,472
Subtotal	<u>11,293,069</u>
Repayment:	
Repayment contracts matured	407,962
Contributions	62,604
Repayment contracts unmatured	13,788,498
Miscellaneous receipts	23,126
Total repayment	<u>14,282,190</u>

CONTRACTS

- 1959, April 28: Contract 14-06-500-368, as amended January 6, 1960, with San Angelo Water Supply Corp. for repayment of not to exceed \$10,196,460 plus interest, the value of the contract having been reduced from \$13,184,000.
- 1959, June 18: Contract 14-06-500-369 with Tom Green County Water Control and Improvement District No. 1 for repayment of a maximum of \$4,000,000.
- 1968, February 22: Amends contract 14-06-500-368 to provide for waiving certain interest charges, as authorized by the Water Supply Act of 1958.
- 1969, June 11: Supplements contract 14-06-500-368 providing for deferment of construction charges payable in calendar year 1969.

Summary of status of repayment contracts:

Total value of contracted repayment	\$14,196,460
Total matured charges	407,962
Total matured charges repaid	407,962
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1967-----	\$17,493,000	\$261,000	-----	\$261,000	\$261,000	-----	\$261,000	\$261,000
1968-----	14,196,460	22,971	-----	22,971	22,971	-----	22,971	283,971
1969-----	14,196,460	123,991	-----	123,991	123,991	-----	123,991	407,962
Total--	-----	407,962	-----	407,962	407,962	-----	407,962	-----

Payout schedule.—Under the terms of the repayment contract of April 28, 1959, the San Angelo Water Supply Corp. is obligated to repay a maximum of \$13,184,000 plus interest in 40 successive annual installments commencing after the project has been completed. Completion notice was given July 6, 1965; first payment was made in 1966. Under the terms of the contract of June 18, 1959, the Tom Green County

Water Control and Improvement District No. 1 is obligated to repay a maximum of \$4,000,000 in 40 successive equal annual installments commencing with the first year following the last year of a development period which is not to exceed 10 years following completion of construction. Development period has never been declared due to inadequate water supply.

SAN DIEGO PROJECT

CALIFORNIA

Construction of the San Diego aqueduct was undertaken on Presidential directive dated November 29, 1944. The act of Congress on April 15, 1948 (62 Stat. 171), ratified the actions theretofore and thereafter taken in construction of the aqueduct. Enlargement of the San Diego aqueduct was authorized by the act of October 11, 1951 (65 Stat. 404).

Construction of the aqueduct was undertaken during World War II in order to relieve the acute water supply situation in the San Diego area associated with increased requirements of the military. With expansion of the military establishment in 1950 and 1951, the Department of the Navy obtained authorization in the act of October 11, 1951, for the enlargement of the aqueduct from 85 cubic feet per second to not less than 165 cubic feet per second. The total length of the aqueduct is 71.1 miles, consisting of concrete pipeline, tunnels, connecting structures, and appurtenant works.

The total cost of the first barrel of the San Diego aqueduct as furnished by the Department of the Navy was \$14,407,644, including \$435,544 representing a claim of S. A. Healey Co. which was canceled in March 1969, thus reducing the cost to \$13,972,099. The cost for the second barrel is \$16,118,117. Cost of work performed by the Bureau of Reclamation was \$269,485 and \$16,116,598 for the first and second barrels, respectively.

Repayment contracts.—Repayment of the cost of the first barrel of the San Diego aqueduct is provided under contract dated October 17, 1945, between the City of San Diego and the Navy Department acting for the United States. On September 23, 1946, by supplemental agreement No. 1, this contract was transferred to the San Diego County Water Authority. It provided for payment of an annual rental of \$500,000, beginning with the formal delivery of possession of the aqueduct to the Authority. In accordance with supplemental agreement No. 4, dated April 1, 1952, to

the contract of October 17, 1945, the cost of the second barrel of the aqueduct will be repaid by the Authority in 40 years with interest.

The administration of the San Diego aqueduct was under the jurisdiction of the Department of the Navy until November 30, 1958. Administration of the aqueduct was transferred to the Department of the Interior as of that date pursuant to interdepartmental agreement dated November 13, 1958, as provided by act of May 31, 1957 (71 Stat. 41). The Authority assumed possession and use on an interim basis from January 1, 1948, to December 31, 1951, of the first barrel and began payment on January 1, 1948, at a rate equivalent to 50 percent of the rental rate prescribed in the contract of October 17, 1945 (supplemental agreement No. 3, dated December 11, 1947). The Authority assumed possession of the second barrel on February 28, 1955, and was notified that payments were to start in accordance with supplemental agreement No. 4 of the contract dated October 17, 1945.

CONTRACTS AND AGREEMENTS

- 1945, October 17: Contract NOY-13300 with City of San Diego for construction and lease of the San Diego aqueduct. Estimated cost of \$14.5 million, to be repaid in annual rentals under lease of \$500,000.
- 1946, April 22: Memorandum of Understanding between Departments of the Navy and Interior transferring administration of aqueduct from Navy to Bureau of Reclamation on completion of construction.
- 1947, December 11: San Diego County Water Authority. Permitted Authority and Metropolitan Water District to assume possession of aqueduct for purpose of operating and maintaining it prior to completion and required payment of a rental rate equal to one-half the annual lease rate prescribed in the contract of October 17, 1945.
- 1952, April 1: Contract NOY-13300 with San Diego County Water Authority for construction of the second barrel of the aqueduct at an estimated cost not exceeding \$18 million, repayable over 40 years with interest.

1952, May 28: Memorandum of Agreement between the Departments of the Navy and Interior providing for the construction of the second barrel and, upon completion thereof, agreeing to amend the memorandum of understanding of April 22, 1946, to provide for the transfer of the administration of first and second barrels of the aqueduct from the Navy to Bureau of Reclamation.

1958, November 13: Memorandum of Understanding between the Departments of the Navy and Interior transferring administration of first and second barrels of the San

Diego aqueduct in accordance with the act of May 31, 1957, Public Law 35, 85th Congress (71 Stat. 41).

Summary of status of repayment contracts:

Total value of contracted repayment	\$30,090,216
Total matured charges	¹ 16,108,098
Total matured charges repaid	¹ 16,108,098
Total matured charges unpaid	0

¹ Excludes \$4,638,469 interest on second barrel.

CONSTRUCTION REPAYMENT HISTORY SAN DIEGO PROJECT—FIRST BARREL

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1948-----	\$14,407,644	\$125,000	-----	\$125,000	\$125,000	-----	\$125,000	\$125,000
1949-----	14,407,644	250,000	-----	250,000	250,000	-----	250,000	375,000
1950-----	14,407,644	250,000	-----	250,000	250,000	-----	250,000	625,000
1951-----	14,407,644	250,000	-----	250,000	250,000	-----	250,000	875,000
1952-----	14,407,644	375,000	-----	375,000	375,000	-----	375,000	1,250,000
1953-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	1,750,000
1954-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	2,250,000
1955-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	2,750,000
1956-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	3,250,000
1957-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	3,750,000
1958-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	4,250,000
1959-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	4,750,000
1960-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	5,250,000
1961-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	5,750,000
1962-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	6,250,000
1963-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	6,750,000
1964-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	7,250,000
1965-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	7,750,000
1966-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	8,250,000
1967-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	8,750,000
1968-----	14,407,644	500,000	-----	500,000	500,000	-----	500,000	9,250,000
1969-----	13,972,099	500,000	-----	500,000	500,000	-----	500,000	9,750,000
Total-----	-----	9,750,000	-----	9,750,000	9,750,000	-----	9,750,000	-----

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY
SAN DIEGO PROJECT—SECOND BARREL

Fiscal year	Total obligation of Water Authority	Collections			Balance to be repaid
		Current year		Cumulative total payment to principal	
		Interest	Principal		
1955 -----	\$16,116,063	\$104,714	\$1,051,694	\$1,051,694	\$15,064,36
1956 -----	16,116,063	387,829	378,978	1,430,672	14,685,39
1957 -----	16,125,015	378,212	379,209	1,809,881	14,315,13
1958 -----	16,125,015	368,356	379,208	2,189,089	13,935,92
1959 -----	16,125,015	358,500	379,209	2,568,298	13,556,71
1960 -----	16,125,015	348,645	379,209	2,947,507	13,177,50
1961 -----	16,125,015	338,789	379,209	3,326,716	12,798,29
1962 -----	16,125,015	328,933	379,209	3,705,925	12,419,09
1963 -----	16,118,117	¹ - 1,157	¹ - 1,081	4,083,919	12,034,19
1964 -----	16,118,117	318,964	379,075		
1965 -----	16,118,117	309,075	379,030	4,462,949	11,655,16
1966 -----	16,118,117	299,224	379,030	4,841,979	11,276,13
1967 -----	16,118,117	289,372	379,029	5,221,008	10,897,10
1968 -----	16,118,117	279,522	379,030	5,600,038	10,518,07
1969 -----	16,118,117	269,671	379,030	5,979,068	10,139,04
1969 -----	16,118,117	259,820	379,030	6,358,098	9,760,01
Total -----	-----	4,638,469	6,358,098	-----	-----

¹ Overpayment reflected by recomputation and adjustment to actual true cost of \$16,118,117.

PAYOUT STUDY—SAN DIEGO WATER AUTHORITY

Fiscal year	Revenues			Investment repayment			
	First barrel principal	Second barrel		Contract obligation		Balance to be repaid	
		Interest	Principal	First barrel interest-free	Second barrel interest-bearing	First barrel	Second barrel
Subtotal	\$9,750,000	\$4,638,469	\$6,358,098	\$13,972,099	\$16,118,117	\$4,222,099	\$9,760,019
1970	500,000	249,969	379,030	13,972,099	16,118,117	3,722,099	9,380,989
1971	500,000	240,118	379,030	13,972,099	16,118,117	3,222,099	9,001,959
1972	500,000	230,267	379,030	13,972,099	16,118,117	2,722,099	8,622,929
1973	500,000	220,415	379,029	13,972,099	16,118,117	2,222,099	8,243,900
1974	500,000	210,565	379,030	13,972,099	16,118,117	1,722,099	7,864,870
1975	500,000	200,714	379,030	13,972,099	16,118,117	1,222,099	7,485,840
1976	500,000	190,863	379,030	13,972,099	16,118,117	722,099	7,106,810
1977	500,000	181,012	379,030	13,972,099	16,118,117	222,099	6,727,780
1978	222,099	171,161	379,030	13,972,099	16,118,117		6,348,750
1979		161,310	379,029	13,972,099	16,118,117		5,969,720
1980		151,459	379,030	13,972,099	16,118,117		5,590,690
1981		141,608	379,030	13,972,099	16,118,117		5,211,660
1982		131,757	379,030	13,972,099	16,118,117		4,832,630
1983		121,906	379,030	13,972,099	16,118,117		4,453,600
1984		112,055	379,030	13,972,099	16,118,117		4,074,570
1985		102,203	379,029	13,972,099	16,118,117		3,695,540
1986		92,353	379,030	13,972,099	16,118,117		3,316,510
1987		82,502	379,030	13,972,099	16,118,117		2,937,480
1988		72,651	379,030	13,972,099	16,118,117		2,558,450
1989		62,800	379,030	13,972,099	16,118,117		2,179,420
1990		52,949	379,030	13,972,099	16,118,117		1,800,390
1991		43,098	379,029	13,972,099	16,118,117		1,421,360
1992		33,247	379,030	13,972,099	16,118,117		1,042,330
1993		23,396	379,030	13,972,099	16,118,117		663,300
1994		13,545	379,030	13,972,099	16,118,117		284,270
1995		3,694	284,273	13,972,099	16,118,117		
	13,972,099	7,936,686	16,118,117				

SAN JUAN-CHAMA PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO-NEW MEXICO

The construction of the initial stage of the San Juan-Chama project was authorized as a participating project of the Colorado River Storage Project by Public Law 87-483, approved June 13, 1962. The collection and diversion element of the project is located in Archuleta County, southcentral Colorado, and Rio Arriba County, northcentral New Mexico. The tributary irrigation units are located in Rio Arriba, Taos and Santa Fe Counties in northcentral New Mexico. The initial stage of the project will provide for the transmountain diversion of about 110,000 acre-feet of water from the upper tributaries of the San Juan River for utilization in the Rio Grande Basin in New Mexico. The collection and diversion element will consist of diversion dams on the Rio Blanco, Little Navajo, and Navajo Rivers; a conduit system consisting of closed feeder canals, siphons and three tunnels which transport the water into the Rio Grande watershed; and Heron Dam and Reservoir, where the water will be regulated. Also, as a part of this element, the outlet of existing El Vado Dam will be increased in capacity to accommodate the additional imported water. The tributary irrigation units work will consist of the rehabilitation of facilities for four existing irrigation systems.

The project will divert 48,200 acre-feet of water annually for municipal and industrial uses by the city of Albuquerque. Another objective of the project is to provide supplemental irrigation water for 81,610 acres in the existing Middle Rio Grande Conservancy District and a full irrigation water supply for 33,544 acres in the Cerro, Taos, Llano, and Pojoaque tributary units, which are located in areas along tributaries of the Rio Grande where lack of late-season irrigation water has created an economically distressed area.

The total estimated project cost is \$78,148,000, exclusive of any costs of specific facilities for recreation and fish and wildlife constructed under section 8 of the Colorado River Storage Project authorizing act of April 11, 1956.

Repayment contracts.—A contract with Middle Rio Grande Conservancy District provides for a maximum repayment of \$3,400,000. Additional contracts with tributary irrigation units will provide the balance of the allocation. A contract with the city of Albuquerque provides for a maximum repayment of \$30,926,000 plus not to exceed 5 percent.

CONTRACTS

- 1963, June 25: Contract 14-06-500-810 with city of Albuquerque, N. Mex., for \$30,684,000 plus interest during construction and annual interest on unamortized balance of M&I allocation, payable in 50 annual installments due on September 1 of each year.
- 1963, June 25: Amendment No. 4 to contract I78r-423 with Middle Rio Grande Conservancy District for \$3,400,000 for irrigation, payable in 50 annual installments, each of which may be paid one-half thereof on February 1 and the other on August 1 of each year. (See Middle Rio Grande project)
- 1965, July 6: Amendment No. 1 to contract 14-06-500-810 provides for the city to assign 5,000 acre-feet of water and a proportionate share of its construction obligation (\$2,907,044) to nonreimbursable fish and wildlife purposes.

Statement of cost and repayment:

Cost:

Collection and diversion element:

Heron Dam and Reservoir	\$12,690,000
El Vado Dam (outlet)	2,919,304
Diversion works	3,000,000
Canal and conduit system	36,495,696
Other facilities	1,295,000

REPAYMENT OF RECLAMATION PROJECTS

Tributary irrigation element:		Municipal and industrial water		27,203,00
Pojoaque unit	2,804,000	Total		71,975,00
Llano unit	2,900,000	Nonreimbursable costs:		
Taos unit	11,000,000	Fish and wildlife (includes section 8)		6,449,80
Cerro unit	1,790,000	Road relocation		608,00
Other facilities	589,000	Recreation—section 8		592,10
Interest during construction (M&I water) ..	2,665,000	Total		7,649,90
Estimated total cost	78,148,000	Repayment of reimbursable costs:		
Cost by other agencies—section 8:		Irrigation repayment contracts		8,105,00
National Park Service—recreation	592,100	Municipal and industrial water		30,684,00
Bureau of Sport Fisheries and Wildlife—		Power revenues:		
fish and wildlife	884,800	Upper Colorado River Basin Fund		36,180,10
Total	79,624,900	Colorado River Development Fund		654,89
		Total		75,624,00
Reimbursable costs:		Surplus		3,649,00
Irrigation	44,772,000			

SAN LUIS VALLEY PROJECT

COLORADO

The San Luis Valley project was originally authorized on February 1, 1940, by a finding of feasibility which the Secretary of the Interior submitted to the President under the Reclamation Project Act of 1939 (53 Stat. 1187). The finding of feasibility was transmitted to the Congress on April 10, 1940. A supplemental finding of feasibility covering the Platoro unit was made in letter of March 7, 1949, from the Secretary of the Interior to the President. Construction of other parts of the San Luis Valley project is contingent upon additional findings of feasibility.

Statement of cost and repayment:

Cost:

Platoro Dam and Reservoir	\$3,871,882
O&M deficit	9,645
Total	3,881,527

Allocation:

Irrigation	2,323,129
Flood control	1,548,753

Repayments and other credits:

Repayments realized:

Repayment contract matured	6,470
Other repayments	242
Reserve for depreciation	491

Anticipated future repayment:

Repayment contract unmatured	2,324,685
Depreciation	886

Total repayments	2,332,774
Nonreimbursable flood control	1,548,753

Total repayments and other credits	3,881,527
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PLATORO UNIT

The Platoro unit, consisting of the Platoro Dam and Reservoir located on the Conejos River in Conejos County, Colo., near Monte Vista provides supplemental water for approximately 81,000 acres in the Conejos Water Conservancy District and controls floods on the upper Conejos River.

The total cost of the Platoro unit to June 30, 1969, is \$3,871,882. According to the authorization, 60 percent of the cost is allocated to irrigation and 40 percent is allocated to nonreimbursable flood control.

CONTRACTS

1949, March 31: Contract 11r-1529 with the Conejos Water Conservancy District to repay 60 percent of the cost of Platoro unit, not to exceed \$2,520,000.

1958, June 3: Supplemental contract 14-06-500-340 extends the development period an additional 5 years to December 31, 1963, and provides for a reserve fund and variable repayment plan. The base annual construction charge of \$58,194 shall be varied in proportion to actual water available to the District the previous calendar year in relation to a normal calendar year supply. The construction charge obligation subject to future audit was set at \$2,327,739.91. The first payment was due on or before December 31, 1964. Since no water was available for delivery during calendar year 1963, no payment was made in 1964 under the variable repayment plan. Until the State of Colorado erases its debit status under the Rio Grande Compact, it is unlikely that water will be available to the District and that any repayment will be realized.

1960, August 19: Amendatory contract 14-06-500-466 amends reserve fund provisions of the basic contract and establishes that prerequisites in the 1958 contract have been satisfied.

Payout schedule.—Under terms of the repayment contract of March 31, 1949, the Conejos Water Conservancy District was obligated to repay 60 percent of the cost of the Platoro unit, not to exceed \$2,520,000, in 40 consecutive annual installments commencing in 1959. A supplemental contract of June 3, 1958, provides for repayment in accordance with a variable repayment plan with a base annual installment of \$58,194.

No construction repayment has been made by the water users because no water has been available for their use under the Rio Grande Compact requirement.

Operation and maintenance costs are provided for by appropriated funds.

Summary of status of repayment contracts:

Total value of contracted repayment \$2,331,155
 Total matured charges 6,470¹

¹ Revenue credits applied to repayment.

OPERATION AND MAINTENANCE ASSESSMENTS
 HISTORY

Fiscal year	Accruals	Collections
1954-----	\$2,500	0
1955-----	4,500	\$2,500
1956-----	6,000	4,500
1957-----	0	6,000
1958-----	4,800	4,800
1959-----	4,800	4,800
1960-----	4,800	4,800
1961-----	4,800	4,800
1962-----	4,800	4,800
1963-----	4,800	4,800
1964-----	4,800	4,800
1965-----	4,800	4,800
1966-----	4,800	4,800
1967-----	2,500	2,500
1968-----	0	0
1969-----	0	0
Total-----	58,700	58,700

SANPETE PROJECT

UTAH

The construction of Sanpete project near Spring City and Ephraim, in Sanpete County, Utah, was initiated under the provisions of the National Industrial Recovery Act of June 16, 1933, and approved by the President on November 6, 1935.

The project was developed to furnish water to lands under the Ephraim Irrigation Co. and the Horseshoe Irrigation Co. Project features include the Ephraim

tunnel and 2 feeder canals and the Spring City tunnel and 2 feeder canals.

The present irrigable area for service is 13,694 acres, with 12,227 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$610.680 and \$49.95, respectively.

The project consists of the Ephraim division and the Spring City division.

STATEMENT OF PROJECT COST AND REPAYMENT

	Project total	Ephraim division	Spring City division
Irrigation plant -----	\$433,940	\$206,510	\$227,430
Total cost -----	433,940	206,510	227,430
<i>Repayments and Other Credits</i>			
Repayments:			
Repayment contracts matured -----	268,535	140,829	127,706
Contributions -----	1,164	1,164	
	269,699	141,993	127,706
Repayment contracts unmatured -----	104,841	50,117	54,724
Total repayments -----	374,540	192,110	182,430
Other credits:			
Nonreimbursable—Civilian Conservation Corps costs -----	59,400	14,400	45,000
Total -----	433,940	206,510	227,430

EPHRAIM DIVISION

The total cost of constructing the Ephraim division is \$206,510. The entire amount, less contributions of \$1,164 and Civilian Conservation Corps costs of \$14,400, is repayable under the terms of the repayment contract with Ephraim Irrigation Co.

The project features are operated and maintained by the Ephraim Irrigation Co.

CONTRACTS

1934, July 11: Contract Ilr-765, with Ephraim Irrigation Co. Contract obligation \$190,000, payable in 40 equal annual installments.

1939, September 27: Supplemental contract Ilr-765 with Ephraim Irrigation Co. increased contract obligation \$1,000.

Summary of status of the Ephraim division repayment contracts:

REPAYMENT OF RECLAMATION PROJECTS

Total value of contracted repayment	\$190,946
Total matured charges	140,829
Total matured charges repaid	140,829
Total matured charges unpaid	0

SPRING CITY DIVISION

The total cost of constructing the Spring City division is \$227,430. The entire amount less Civilian Conservation Corps costs of \$45,000 is repayable under terms of repayment contract with the Horseshoe Irrigation Co.

The project features are operated and maintained by the Horseshoe Irrigation Co.

CONTRACTS

- 1935, May 31: Contract Ilr-803 with Horseshoe Irrigation Co
Contract obligation \$175,000, payable in 40 equal annual installments.
- 1939, January 16: Supplemental contract Ilr-803 with Horseshoe Irrigation Co. increased contract obligation \$10,000.

Summary of status of the Spring City division repayment contracts:

Total value of contracted repayment	\$182,430
Total matured charges	127,706
Total matured charges repaid	127,706
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—EPHRAIM DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935	\$190,000							
1936	190,000							
1937	191,000							
1938	191,000							
1939	191,000							
1940	191,000	¹ \$2,375		\$2,375	\$2,375		\$2,375	\$2,375
1941	191,000	4,776		4,776	4,776		4,776	7,151
1942	191,000	4,775		4,775	4,775		4,775	11,926
1943	190,946	4,774		4,774	4,774		4,774	16,700
1944	190,946	4,774		4,774	4,774		4,774	21,474
1945	190,946	4,774		4,774	4,774		4,774	26,248
1946	190,946	4,774		4,774	4,774		4,774	31,022
1947	190,946	4,774		4,774	4,774		4,774	35,796
1948	190,946	4,774		4,774	4,774		4,774	40,570
1949	190,946	4,774		4,774	4,774		4,774	45,344
1950	190,946	4,774		4,774	4,774		4,774	50,118
1951	190,946	4,774		4,774	4,774		4,774	54,892
1952	190,946	4,775		4,775	4,775		4,775	59,667
1953	190,946	4,775		4,775	4,775		4,775	64,442
1954	190,946	4,775		4,775	4,775		4,775	69,217
1955	190,946	4,774		4,774	4,774		4,774	73,991
1956	190,946	4,774		4,774	4,774		4,774	78,765
1957	190,946	4,774		4,774	4,774		4,774	83,539
1958	190,946	4,774		4,774	4,774		4,774	88,313
1959	190,946	4,775		4,775	4,775		4,775	93,088
1960	190,946	4,774		4,774	4,774		4,774	97,862
1961	190,946	4,774		4,774	4,774		4,774	102,636
1962	190,946	4,774		4,774	4,774		4,774	107,410
1963	190,946	4,774		4,774	4,774		4,774	112,184
1964	190,946	4,775		4,775	4,775		4,775	116,959
1965	190,946	4,774		4,774	4,774		4,774	121,733
1966	190,946	4,774		4,774	4,774		4,774	126,507
1967	190,946	4,774		4,774	4,774		4,774	131,281
1968	190,946	4,774		4,774	4,774		4,774	136,055
1969	190,946	4,774		4,774	4,774		4,774	140,829
Total		140,829		140,829	140,829		140,829	

¹ Installment deferred under act of Aug. 4, 1939, \$2,375.

CONSTRUCTION REPAYMENT HISTORY—SPRING CITY DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1935-----	\$175,000							
1936-----	185,000							
1937-----	185,000							
1938-----	185,000							
1939-----	185,000							
1940-----	185,000							
1941-----	183,100							
1942-----	183,100	\$4,575		\$4,575	\$2,535		\$2,535	\$2,535
1943-----	182,430	4,561		4,561	2,412	\$2,040	4,452	6,987
1944-----	182,430	4,560		4,560	2,660	2,149	4,809	11,796
1945-----	182,430	4,561		4,561	936	1,900	2,836	14,632
1946-----	182,430	4,561		4,561	707	3,625	4,332	18,964
1947-----	182,430	4,560		4,560	440	3,854	4,294	23,258
1948-----	182,430	4,560		4,560	2,447	4,120	6,567	29,825
1949-----	182,430	4,560		4,560	4,560	420	4,980	34,805
1950-----	182,430	4,561		4,561	3,286	1,694	4,980	39,785
1951-----	182,430	4,561		4,561	3,261	2,574	5,835	45,620
1952-----	182,430	4,560		4,560	4,560		4,560	50,180
1953-----	182,430	4,560		4,560	4,560		4,560	54,740
1954-----	182,430	4,560		4,560	4,560		4,560	59,300
1955-----	182,430	4,560		4,560	4,560		4,560	63,860
1956-----	182,430	4,561		4,561	4,561		4,561	68,421
1957-----	182,430	4,560		4,560	4,560		4,560	72,981
1958-----	182,430	4,560		4,560	4,560		4,560	77,541
1959-----	182,430	4,560		4,560	4,560		4,560	82,101
1960-----	182,430	4,561		4,561	4,561		4,561	86,662
1961-----	182,430	4,560		4,560	4,560		4,560	91,222
1962-----	182,430	4,561		4,561	4,561		4,561	95,783
1963-----	182,430	4,560		4,560	4,560		4,560	100,343
1964-----	182,430	4,560		4,560	4,560		4,560	104,903
1965-----	182,430	4,560		4,560	4,560		4,560	109,463
1966-----	182,430	4,561		4,561	4,561		4,561	114,024
1967-----	182,430	4,561		4,561	4,561		4,561	118,585
1968-----	182,430	4,560		4,560	4,560		4,560	123,145
1969-----	182,430	4,561		4,561	4,561		4,561	127,706
Total-----		127,706		127,706	105,330	22,376	127,706	

SANTA MARIA PROJECT

CALIFORNIA

The Santa Maria project, located in northern Santa Barbara County and southern San Luis Obispo County, was authorized by act of September 3, 1954 (68 Stat. 1190).

The purpose of the project is to provide supplemental irrigation water to the project area by releases into the stream channels for ground-water recharge. The project will also provide some flood-control benefits and is related to authorized Corps of Engineers project for levee construction downstream.

Twitchell Dam and Reservoir, with a capacity of 240,100 acre-feet, will store surplus water of the Cuyama River and release flows after peak discharges on the Sisquoc River have passed. The released flows will recharge the ground water of the area.

The project cost as of June 30, 1969, is \$11,650,219, of which \$2,066,982 is allocated to flood control and is nonreimbursable.

The project works were transferred to the Santa Maria Valley Water Conservation District for operation on June 1, 1959.

In 1969, the irrigable acreage for service was 35,200 and 30,500 acres were irrigated, returning a gross crop value of \$29,602,631 with an average value per acre of \$970.58.

Repayment contract.—The repayment contract required by the authorizing act was signed by the Santa Barbara County Water Agency on April 6, 1956. Substantially all of the land to benefit from the project is included in the Santa Maria Valley Water Conservation District, which has entered into a repayment contract with the Santa Barbara County Water Agency. Under this member unit contract, the Santa Maria District is to repay the reimbursable costs of the project, less a payment of \$50,000 per year which will be met by an ad valorem countywide tax levied by the Agency.

Payout schedule.—Repayment will be made in 80 equal semiannual installments, the first being due on January 1, 1965, after a 2-year development period. The 2-year development period began on January 1, 1963.

CONTRACT AND NOTICE

- 1956, April 6: Contract 14-06-200-5366 with Santa Barbara County Water Agency for \$13,969,000.
1968, December 10: Letter notice to Santa Barbara County Water Agency that final construction cost of Santa Maria project is \$11,650,218.50, of which \$2,066,981.77 is non-reimbursable. Contributions of \$67,062 leave the total value of the repayment contract as \$9,516,174.73.

Summary of status of repayment contract:

Total value of contracted repayment	\$9,516,175
Total matured charges	1,189,582
Total matured charges repaid	1,189,582
Total matured charges unpaid	0

Cost allocation and repayment:

Cost:	
Multipurpose plant	\$11,643,962
Property transfer	6,257
Total cost	11,650,219
Allocation:	
Reimbursable, irrigation	9,583,237
Nonreimbursable, flood control	2,066,982
Total	11,650,219
Repayment:	
Repayment realized:	
Repayment contract matured	1,189,522
Contributions	67,062
Total	1,256,584
Repayment anticipated:	
Repayment contract unmatured	8,326,653
Total repayment	9,583,237

CONSTRUCTION REPAYMENT HISTORY—SANTA BARBARA COUNTY WATER AGENCY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
965-----	\$9,518,191	\$237,955	-----	\$237,955	\$237,955	-----	\$237,955	\$237,955
966-----	9,518,191	237,955	-----	237,955	237,955	-----	237,955	475,910
967-----	9,518,191	237,954	-----	237,954	237,954	-----	237,954	713,864
968-----	9,518,191	237,955	-----	237,955	237,955	-----	237,955	951,819
969-----	9,516,175	237,763	-----	237,763	237,763	-----	237,763	1,189,582
Total--	-----	1,189,582	-----	1,189,582	1,189,582	-----	1,189,582	-----

SCOFIELD PROJECT

UTAH

The construction of the Scofield project near Price in Carbon County, Utah, was approved by the President on June 24, 1943, under the terms of the Water Conservation and Utilization Act of August 11, 1939 (53 Stat. 1418), as amended.

The project was developed to replace the deteriorated Scofield Dam, which was in danger of failure, to provide supplemental water to about 16,000 acres, afford flood protection, and preserve fish life. Project features include the Scofield Dam and Reservoir.

The total cost of the project is \$943,837. The reimbursable portion of this cost, \$254,122, less miscellaneous revenues and Colorado River Development Fund expenditures, is repayable under the terms of the repayment contracts with the Carbon Water Conservancy District and the Utah State Fish and Game Department.

The present irrigable area for service is 15,843 acres, with 13,170 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$1,430,494 and \$108.62, respectively.

Operation and maintenance of the project was transferred to the District on April 1, 1949.

Statement of project cost and repayment:

Cost:

Scofield Dam and Reservoir	\$943,837
O&M deficit	1,366
Total	945,203

Allocation:

Reimbursable:	
Irrigation	223,122
Fish and wildlife	31,000
Nonreimbursable	
Irrigation ¹	298,081
Flood control	393,000

Repayments and other credits:

Repayment realized:

Repayment contracts matured	149,800
Costs financed by Colorado River	
Development Fund	6,018
Rental of lands	1,100

Subtotal repayment realized 156,922

Anticipated future repayment:

Repayment contracts unmatured 97,200

Total repayment **254,122**

Other credits:

Nonreimbursable 691,081

Total **945,203**

¹ Water Conservation and Utilization Act, as amended Oct. 14, 1940.

CONTRACTS AND NOTICE

1943, October 11: Contract 11r-1406 between Carbon Water Conservancy District, the Price River Water Conservation District, and the United States setting forth certain precedents to actual construction.

1944, February 28: Repayment contract 11r-1415 with Carbon Water Conservancy District provides for reimbursable construction cost of \$216,000, to be paid by the District in 40 equal annual installments.

1944, May 26: Contract 11r-1420 with State of Utah Fish and Game Department provides for use by the State of the inactive reservoir capacity and payment of \$31,000 of the project construction cost.

1948, September 20: Notice to the Carbon Water Conservancy District transferring operation and maintenance to the District effective April 1, 1949.

Summary and status of repayment contracts:

Total value of contracted repayment	\$247,000
Total matured charges	149,800
Total matured charges repaid	149,800
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
945	\$247,000	\$10,000		\$10,000	\$10,000		\$10,000	\$10,000
946	247,000	10,000		10,000	10,000		10,000	20,000
947	247,000	11,000		11,000	11,000		11,000	31,000
948	247,000	5,400		5,400	5,400		5,400	36,400
949	247,000	5,400		5,400	5,400		5,400	41,800
950	247,000	5,400		5,400	5,400		5,400	47,200
951	247,000	5,400		5,400	5,400		5,400	52,600
952	247,000	5,400		5,400	5,400		5,400	58,000
953	247,000	5,400		5,400	5,400		5,400	63,400
954	247,000	5,400		5,400	5,400		5,400	68,800
955	247,000	5,400		5,400	5,400		5,400	74,200
956	247,000	5,400		5,400	5,400		5,400	79,600
957	247,000	5,400		5,400	5,400		5,400	85,000
958	247,000	5,400		5,400	5,400		5,400	90,400
959	247,000	5,400		5,400	5,400		5,400	95,800
960	247,000	5,400		5,400	5,400		5,400	101,200
961	247,000	5,400		5,400	5,400		5,400	106,600
962	247,000	5,400		5,400	5,400		5,400	112,000
963	247,000	5,400		5,400	5,400		5,400	117,400
964	247,000	5,400		5,400	5,400		5,400	122,800
965	247,000	5,400		5,400	5,400		5,400	128,200
966	247,000	5,400		5,400	5,400		5,400	133,600
967	247,000	5,400		5,400	5,400		5,400	139,000
968	247,000	5,400		5,400	5,400		5,400	144,400
969	247,000	5,400		5,400	5,400		5,400	149,800
Total		149,800		149,800	149,800		149,800	

SEEDSKADEE PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

WYOMING

The Seedskadee project was authorized as a participating project with the Colorado River Storage Project by the act of April 11, 1956 (70 Stat. 105) with special land acquisition authority provided by the act of August 28, 1958 (72 Stat. 963). It will regulate the flows of the river for the irrigation of a substantial area of new land, for electric power production, and for supply to a wildlife refuge to be developed downstream. It will also provide 60,000 acre-feet of storage capacity for the State of Wyoming for future municipal and industrial water requirements under provisions of the Water Supply Act of 1958. Recreation benefits will also be provided.

The project is located in southwestern Wyoming and follows along the Green River for about 15 to 50 miles north of the city of Green River.

The total estimated cost of the project is \$47,653,-858.

Including ad valorem tax revenues, the irrigators' repayment obligation is expected to be \$7,300,000, payable in 50 equal annual installments, after a 10-year development period.

The project will ultimately furnish full irrigation service to 58,775 acres, of which 15,656 acres will be deferred until a solution to the mineable trona underlying this area can be developed. Water will also be provided for the proposed Seedskadee National Wildlife Refuge of approximately 18,000 acres. The refuge will be located along both sides of the Green River in the center of the irrigable area.

A hydroelectric powerplant with an installed capacity of 10,000 kilowatts has been constructed to utilize the powerhead provided by the Fontenelle Dam. The power production is integrated with that of the Colorado River Storage project through the interconnection afforded by the Bridger Valley Electric Association power system.

The constructed features of the project are Fontenelle Dam and Reservoir, with a total capacity of 345,000 acre-feet and a 10,000-kilowatt powerplant and switchyard.

Construction of the irrigation distribution works comprising the West Side Canal, 43 miles in length; East Side Canal, 14.7 miles in length; Big Sandy Canal, 44.3 miles in length; and Upper and Lower West Side Pumping Plants are deferred until further determinations are made as to the most adaptable irrigation and farming techniques to be employed in the area.

In 1964, the Seedskadee Development Farm was established on 500 acres beside the Green River about 10 miles below Fontenelle Dam. Purpose of the farm is to (1) determine the most effective irrigation and crop management practices, and (2) determine the optimum size farm for family operation. Cooperating in the 5-year farm study are the Bureau of Reclamation and the University of Wyoming, with contribution from other related agencies. Results of the study will be used to assist future settlers on the Seedskadee project.

Another feature which has real importance to this project is the recommendation for the development of a community pasture arrangement available to all settlers on the project.

CONTRACT

1962, June 14: Contract 14-06-400-2474 with the State of Wyoming for the purchase of 60,000 acre-feet of capacity, or that amount that can be furnished for \$900,000 in the Fontenelle Reservoir for industrial and municipal water.

Statement of cost and repayment:

Cost:

Multipurpose plant:

Fontenelle Dam and Reservoir	\$17,590,165
West Side Canal	504,427

Operating facilities	272,603
Irrigation plant:	
Development farm	449,144
Pumping plants, laterals and drains	742,983
Electric plant:	
Fontenelle Powerplant	3,328,376
Fontenelle switchyard	182,908
Other electric plant	78,688
Other plant	380,437
Cost to complete construction	23,655,393
Total plant cost	47,185,124
Transitional development costs	468,734
Total cost	47,653,858
Costs other agencies—section 8	2,957,521
Total	50,611,379
Allocation:	
Reimbursable:	
Irrigation	41,385,630
Commercial power	3,588,186
Municipal and industrial water	908,161

Repayment and other credits:
 Repayment realized:

Other physical property—land credit	500
Costs financed by C.R.D.F.	410,528
Net power revenues	(14,751)
Reserve for depreciation	15,640
Subtotal repayment realized	11,917
Anticipated future repayment:	
Land purchase and resale	139,707
Repayment contracts unmatured	900,000
Future repayment contracts	7,300,000
Commercial power revenues ...	3,587,297
Revenues—Upper Colorado River Basin Fund	33,543,056
Subtotal, anticipated repayment	45,470,060
Total repayment	45,881,977
Other credits:	
Contribution eliminated	810
Nonreimbursable:	
Fish and wildlife (including \$2,634,671— section 8)	4,204,671
Recreation—section 8	322,850
Highway relocation	201,071
Subtotal other credits	4,729,402
Total repayment and other credits	50,611,379

SHOSHONE PROJECT

WYOMING-MONTANA

The Shoshone project was authorized by the Secretary of the Interior under the Reclamation Act of 1902 (32 Stat. 388), on February 10, 1904. Heart Mountain power development was found feasible and authorized by the Secretary on June 19, 1945, under the Reclamation Project Act of 1939 (53 Stat. 1193).

The Shoshone project is situated on the Shoshone River below Cody in northwestern Wyoming. Features of the project include Buffalo Bill Dam and Reservoir, Shoshone and Heart Mountain Powerplants, associated power transmission facilities, and a network of canals and laterals to deliver water to lands in Garland, Frannie, Willwood and Heart Mountain Irrigation Districts. A full irrigation water supply is furnished to about 94,000 acres. Electric power is generated and distributed to many areas through a grid system which includes power from the Riverton, North Platte, Kendrick and Colorado-Big Thompson projects and the Boysen unit of the Missouri River Basin project.

Construction began on the project in early 1904. Ralston Dam and Corbett Dam were completed in 1908, thereby making the first water available for irrigation. Buffalo Bill Dam began storing water in 1910. Deaver

Dam was completed in 1918, and the Willwood Dam in 1924. The first lands open to settlement in the project were in the Garland division in the vicinity of Powell, Wyo. The development of the Garland division was virtually complete in 1918. Between 1917 and 1920, the Frannie division, embracing lands principally between the towns of Frannie and Cowley, Wyo., was opened to settlement. The Willwood division, lying south of the Shoshone River, extending 16 miles eastward from the Willwood Diversion Dam, was settled under successive openings between 1927 and 1938. The Heart Mountain division, completed in 1948, extends along the north side of the Shoshone River from the vicinity of Cody, Wyo., to a point about 7 miles northwest of Ralston, Wyo.

The major features consist of two storage dams with a combined reservoir capacity of 373,700 active acre-feet, two diversion dams, 146 miles of canals, 593 miles of laterals, 660 miles of drains, two powerplants, 143 miles of transmission lines, and three substations.

The acreage and crop value data for the calendar year of 1969 were as follows:

Division and district	Irrigable acreage for service	Irrigated acreage	Total value	Value per acre irrigated
Frannie (Deaver)-----	14,600	12,772	\$728,430	\$57.03
Garland (Shoshone)-----	35,905	31,822	3,710,672	116.61
Heart Mountain-----	26,423	24,504	2,848,914	116.26
Willwood-----	11,313	10,790	1,409,895	130.67
Total-----	88,241	79,888	8,697,911	108.88

The reserved works, including the dam, powerplants, and transmission system, are operated by the United States. The Buffalo Bill Dam and Reservoir and a portion of the carriage works of the project will also serve lands of the potential Shoshone Extensions unit, Missouri River Basin project. Operation of the reserved works is financed by advances from water users and from direct appropriations for flood control benefits and for power operations.

Approximately 44.70 acres of land within the Shoshone Irrigation District, 53.00 acres within the Deaver Irrigation District, and 171.60 acres within the Willwood Irrigation District were relinquished under the Farm Unit Exchange Act of August 13, 1953, and have not been returned to paying status within the Districts' repayment obligations. The total nonreimbursable expenses incurred in the administering of that act is \$96,723.

The total estimated cost of the project is \$23,906,152 of which \$5,950,734 is reimbursable from power revenues; \$2,337,519 has been written off by the acts of May 25, 1926, May 6, 1949, October 27, 1949, August 3, 1953, and July 14, 1954; \$1,695,952 is assigned to the Missouri River Basin project; \$144,763 is nonreimbursable, and \$13,777,184 is to be repaid by the water users and from miscellaneous revenues and contributions.

FRANNIE DIVISION

The total costs of the Frannie division including \$288,443 for rehabilitation and betterment and \$29,973 for transitional development costs are \$3,256,410. The water users have contracted to repay their share of the storage works and funded charges. The entire amount, with the exception of a chargeoff by authority of the act of May 25, 1926, and contract negotiation costs, is repayable. Operation and maintenance of the division was assumed by the Deaver Irrigation District in 1930. The District pays its share of the cost of operating the reserved works by advances to the United States.

There are 14,600 irrigable acres in the division.

Repayment contracts.—The original Deaver Irrigation District repayment contract was signed on December 22, 1926. The amendatory contract, signed on November 14, 1949, provides for the repayment of a construction charge obligation of \$1,768,973 in annual installments of \$7,500 each, increasing with increase in paying acreage. The District may elect to make payment under an agricultural parity-price formula.

On September 6, 1963 the District contracted to re-

pay 30 percent of the cost of rerouting the Garland Canal to bypass the Ralston Reservoir, payment to be in 6 annual installments. This work was completed in 1964 at a total cost of \$15,543 to the Deaver Irrigation District.

Individual contracts within Frannie division provide for the repayment of \$6,558 in construction cost for Montana lands outside of the Deaver Irrigation District. In addition, the town of Deaver, Wyo., has contracted for the repayment of \$5,000 for the right to the use of not to exceed 125 acre-feet of water per calendar year.

A water service contract with the Town of Cowley, Wyo. was dated August 14, 1967. Water will be taken from Drain No. 120-117, Frannie division. All facilities necessary to take and deliver the water from the drain are to be built and maintained by the town. Service began September 1, 1969. Annual minimum payment is \$450 for 75 acre-feet with provision for an additional 400 acre-feet as needed with advance payment at rate of \$6 per acre-foot.

PUBLIC NOTICES AND CONTRACTS

- 1917, August 31: Public notice. Construction charge \$66 per acre, 20 graduated installments.
- 1919, August 21: Public notice. Construction charge \$90 per acre, 20 graduated installments.
- 1920, January 28: Public notice. Construction charge \$95 per acre, 20 years.
- 1921, July 19: Public notice. Construction charge \$100 per acre, 20 years.
- 1922, June 3: Public notice. Supplemental construction of drainage works, \$30 per acre, payable in 4 equal annual installments.
- 1924, February 7: Order suspending all public notices and placing division on a water rental basis.
- 1926, December 22: Contract 11r-97 with Deaver Irrigation District, under which District assumes obligation to pay the construction cost of Frannie division, payments to be made on crop-production basis, beginning with the year 1932.
- 1933, June 3: Amendment to 1926 contract. Construction payments 1933-42 postponed to enable District to construct needed drains.
- 1948, June 1: Amendment to 1926 contract. Partial deferment of 1948-49 construction payments pending negotiation of an amendatory repayment contract.
- 1949, November 14: Amendatory repayment contract 11r-1556 with Deaver Irrigation District providing for repayment of construction charge obligation, not to exceed \$2,137,259, including expenditures for rehabilitation and betterment, in annual installments of \$7,500 each beginning in 1952. Payment of 1950 construction charge deferred to permit establishment of reserve fund for operation and maintenance. This contract also provided for the United States to advance a total of \$213,000 to the District to finance an irrigation works and land rehabilitation program. In return for the \$213,000 payment,

the District agreed to the inclusion in its repayment obligation of \$170,250 to cover a proportionate share of the cost of Buffalo Bill Reservoir and further relinquish all claims to share in the net revenues and operation of the Shoshone project powerplants.

1953, December 28: Contract 14-06-600-513 with the town of Deaver, Wyo., for the repayment of \$5,000 for the right to use not more than 125 acre-feet of water per calendar year.

1963, September 6: Contract 14-06-600-7724 with Deaver Irrigation District for repayment of 30 percent of the cost of repair of the Garland Canal not to exceed \$15,900, to be repaid in 6 annual installments beginning December 15, 1964.

Summary of status of the Frannie Division repayment contracts:

Total value of contracted repayment	\$1,795,353
Total matured charges	355,828
Total matured charges repaid	355,828
Total matured charges unpaid	0

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—DEAVER IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1919	\$10,280	\$4,892
1920	14,660	10,873
1921	33,636	13,223
1922	37,985	9,519
1923	25,307	8,746
1924	21,677	3,381
1925	¹ 21,688	¹ 217
1926	¹ 17,641	123
1927	¹ 83	7,716
1928	9,970	13,562
1929	12,213	15,572
1930	² 38,195	731
1931	1,392	1,011
1932	1,033	383
1933	1,045	1,030
1934	994	1,058
1935	972	915
1936	1,145	1,037
1937	1,251	1,184
1938	1,546	1,213
1939	1,323	1,548
1940	1,608	1,323
1941	1,481	1,608
1942	1,393	1,480
1943	1,544	2,304
1944	1,320	1,951
1945	1,156	1,158
1946	1,022	1,022
1947	1,265	1,265
1948	912	912
1949	964	964
1950	1,162	1,162
1951	1,250	1,250
1952	1,479	1,479
1953	909	909
1954	1,389	1,389
1955	1,677	1,677
1956	1,063	1,063
1957	1,110	1,110
1958	1,145	1,145
1959	1,236	1,236
1960	1,290	1,290
1961	580	580
1962	644	644
1963	374	374
1964	820	820
1965	508	508
1966	981	981
1967	470	470
1968	342	342
1969	630	630
Total	130,546	130,546

¹ Decrease.

² Decrease covering accruals funded into repayment obligation. District assumed O&M of transferred works Jan. 1, 1930. Accruals after that date for O&M of storage works.

CONSTRUCTION REPAYMENT HISTORY—DEAVER IRRIGATION DISTRICT¹

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1918	\$611,302	\$30,565		\$30,565	\$30,565		\$30,565	\$30,565
1919	766,699	7,767		7,767	7,767		7,767	38,332
1920	1,685,372	45,749		45,749	45,448		45,448	83,780
1921	1,750,820	2,911		2,911	2,911	\$301	3,212	86,992
1922	1,958,474	10,461		10,461	10,461		10,461	97,453
1923	2,656,125	24,717		24,717	2,341	² 1,838	503	97,956
1924	² 2,572,066	29,596	² \$2,179	27,417	1,242	² 2,181	² 939	97,017
1925	² 2,471,059	7,747	² 7,593	154	684	² 5,040	² 4,356	92,661
1926	² 1,968,132	10,795	² 28,708	² 17,913	430	² 19,090	² 18,660	74,001
1927	² 1,805,949	(³)	² 10,961	² 10,961		² 6,667	² 6,667	67,334
1928	² 1,700,801	(³)	² 7,275	² 7,275		² 3,946	² 3,946	63,388
1929	1,719,151	(³)	² 7,610	² 7,610		² 3,642	² 3,642	59,746
1930	1,719,998	(³)	² 46,746	² 46,746		² 509	² 509	59,237
1931	1,717,451	(³)	² 296	² 296		² 296	² 296	58,941
1932	1,718,080	1,261	833	2,094	1,261	833	2,094	61,035
1933	1,718,080	(⁴)		0			0	61,035
1934	1,724,365	⁴ 61	² 769	² 708	61	² 769	² 708	60,327
1935	1,724,365	⁴ 61		61	61		61	60,388
1936	1,724,365	⁴ 61		61			0	60,388
1937	1,724,365	⁴ 62		62		61	61	60,449
1938	1,724,365	⁴ 61		61		62	62	60,511
1939	1,724,365	⁴ 123		123		61	61	60,572
1940	1,724,365	⁴ 123		123		123	123	60,695
1941	1,724,365	⁴ 123		123			0	60,695
1942	1,724,365	⁴ 122		122		245	245	60,940
1943	1,724,365	2,718		2,718	448	122	570	61,510
1944	1,724,365	7,425		7,425	7,302	2,271	9,573	71,083
1945	1,724,365	11,499		11,499	11,376	123	11,499	82,582
1946	1,724,365	14,796		14,796	12,422	122	12,544	95,126
1947	1,724,365	8,486		8,486	8,363	2,374	10,737	105,863
1948	1,724,365	9,457		9,457	9,334	123	9,457	115,320
1949	1,724,365	13,639		13,639	13,464	123	13,587	128,907
1950	⁵ 2,143,817	4,675		4,675	4,500	175	4,675	133,582
1951	2,143,817	4,675		4,675	4,500		4,500	138,082
1952	2,143,817	8,211		8,211	8,211	350	8,561	146,643
1953	2,143,817	7,675		7,675	7,675		7,675	154,318
1954	2,148,817	7,800		7,800	7,800		7,800	162,118
1955	2,148,817	7,800		7,800	7,800		7,800	169,918
1956	2,148,817	7,800		7,800	7,800		7,800	177,718
1957	2,148,817	7,800	⁶ -1,702	6,098	7,800	⁶ -1,702	6,098	183,816
1958	2,148,817	7,800		7,800	7,800		7,800	191,616
1959	2,148,817	7,800		7,800	7,800		7,800	199,416
1960	2,155,524	7,800		7,800	7,800		7,800	207,216
1961	2,158,882	8,305		8,305	8,305		8,305	215,521
1962	2,160,144	8,369		8,369	8,369		8,369	223,890
1963	2,165,005	8,412		8,412	8,412		8,412	232,302
1964	2,183,621	13,524		13,524	13,524		13,524	245,826
1965	2,183,621	11,254		11,254	11,254		11,254	257,080
1966	2,183,264	10,735		10,735	10,735		10,735	267,815
1967	⁷ 1,795,353	13,574	⁸ 51,808	65,382	13,574	⁸ 51,808	65,382	333,197
1968	1,795,353	14,731		14,731	14,731		14,731	347,928
1969	1,795,353	7,900		7,900	7,900		7,900	355,828
Total		417,026	-61,198	355,828	342,231	13,597	355,828	

¹ Includes payments under individual contracts in Frannie division for which Deaver Irrigation District makes collections as fiscal agent for the United States.

² Decrease due to cancellation of individual water-right applications.

³ No payments due under contract of Dec. 22, 1926.

⁴ Suspension of construction charge payments, contract of June 3, 1933.

⁵ Amendatory contract, Nov. 13, 1949.

⁶ Maturities transferred, Public Law 258, act of Aug. 13, 1953.

⁷ Reclassification of class 5 land to permanently unproductive.

⁸ Distribution of revenues accrued prior to the District taking over O&M.

GARLAND DIVISION

The total cost of the Garland division is \$3,777,379. The acts of May 25, 1926, August 13, 1953, and July 14, 1954, authorized writeoff of construction charges amounting to \$719,866. The 1954 act also authorized crediting of the Shoshone Irrigation District with a share of the net revenues from Shoshone Powerplant, amounting to \$426,000, to be applied on the payment of annual construction charges for 1954 and subsequent years until such credit is exhausted. In return for the \$426,000 credit, the District, by amendatory contract of March 29, 1955, pursuant to this act, relinquished all claims to share in the operation of and net revenues from the Shoshone project powerplants. Operation and maintenance of the division was assumed by the Shoshone Irrigation District in 1927. The District pays its share of the cost of operation of the project storage works. There are 35,905 irrigable acres in the division.

Repayment contracts.—The Shoshone Irrigation District repayment contract was signed November 4, 1926, and provides for variable annual payments amounting to 5 percent of the average annual gross crop value per acre of the previous 10 years. As of June 30, 1969, the District had repaid a total of \$2,956,428 on its construction charge obligation of \$3,190,479.

On August 20, 1963, the District contracted to repay 70 percent of the cost of rerouting the Garland Canal to bypass the Ralston Reservoir, payment to be in 6 annual installments. This work was completed in 1964 at a total cost of \$36,267 to the Shoshone Irrigation District.

PUBLIC NOTICES AND CONTRACTS

- 1907, November 25: Public notice, \$45 per acre, 10 equal annual installments.
- 1909, May 8: Public notice, \$46 per acre, 10 equal annual installments.
- 1911, May 20: Public notice, \$47 per acre, 10 equal annual installments.
- 1912, February 9: Public notice, increased rates for those in arrears to \$50, \$51, and \$52 per acre, and graduated installments over 10-year period.
- 1912, March 23: Public notice for additional homesteads. Rate \$52 per acre, 10 graduated installments.
- 1915, September 25: Public notice for supplemental construction of drainage works. Rate \$7 per acre, payable in

additional installments after 20-year period allowed by Extension Act.

- 1917, February 10: Public notice for additional lands. Rate \$59 per acre, 20 graduated installments.
- 1918, July 17: Supplemental construction of drainage works. Rate \$12.50 per acre. Additional installments after 20-year period.
- 1921, July 19: Public notice for additional lands. Rate \$100 per acre, 20 years.
- 1923, April 28: Public notice covering supplemental construction of drainage works. Rate \$11 per acre, payable in 3 installments.
- 1926, November 4: Contract 11r-88 with Shoshone Irrigation District. District assumed obligations of individual water users. Unpaid balances to be paid by District in semi-annual installments, based on 5 percent of average gross annual per acre income from crops.
- 1929, June 3: Contract 11r-562 with town of Powell, Wyo., for repayment of \$5,250 construction costs.
- 1949, April 2: Contract 179r-1404 with Wyoming Game and Fish Commission for repayment of \$1,466.21 construction costs.
- 1955, March 29: Amendatory repayment contract 14-06-W-93 with Shoshone Irrigation District to establish the irrigable acreage of the Garland division at 35,950 irrigable acres, a net reduction of 6,008 irrigable acres in the division as determined by a reclassification survey in 1951, reduced the repayment obligation of the District by \$572,459; to credit the Shoshone Irrigation District with a share of the net power revenues from Shoshone Powerplant, amounting to \$426,000, to be applied on payment of annual construction charges for 1954 and subsequent years until the credit is exhausted; and to establish as \$340,500 the cost of the Buffalo Bill Dam and Reservoir assignable to the District.
- 1963, August 20: Contract 14-06-600-7517 with Shoshone Irrigation District for repayment of 70 percent of the cost of repair of the Garland Canal not to exceed \$37,100, to be repaid in 6 annual installments beginning December 15, 1964.
- 1969, March 21: Contract 14-06-600-10,104 with Shoshone Irrigation District for rehabilitation and betterment of irrigation system. Contract executed for \$2,000,000, which is first stage of a planned three-stage program totaling \$6,000,000. Funds have not yet been appropriated for this work.

The summary of status of the Garland division repayment contracts:

Total value of contracted repayment	\$3,226,746
Total matured charges	2,986,651
Total matured charges repaid	2,986,651
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—SHOSHONE IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$7,066		\$7,066	\$3,315		\$3,315	\$3,315
1909		36,928		36,928	35,802	\$3,751	39,553	42,868
1910		50,922		50,922	25,008	408	25,416	68,284
1911		87,697	¹ \$10,601	77,096	27,442	¹ 8,427	19,015	87,299
1912		66,509	¹ 38,491	28,018	15,136	35,744	50,880	138,179
1913		71,466	¹ 27,224	44,242	14,130	34,557	48,687	186,866
1914		97,906	¹ 12,145	85,761	12,459	6,119	18,578	205,444
1915	² \$1,514,591	32,897	¹ 122,789	¹ 89,892	28,651	1,432	30,083	235,527
1916	1,942,552	29,514	¹ 3,522	25,992	23,962	934	24,896	260,423
1917	2,214,963			31,768			33,574	293,997
1918	2,245,778			22,925			23,738	317,735
1919	2,768,791			50,551			47,971	365,706
1920	2,830,261			47,994			46,739	412,445
1921	2,835,753			79,425	³ 306,147		42,604	455,049
1922	2,940,730	³ 646,025		87,691			28,974	484,023
1923	2,934,414			91,437			27,477	511,500
1924	3,330,508			84,957			16,852	528,352
1925	3,294,790			52,870			9,148	537,500
1926	3,193,476			96,407			29,070	566,570
1927	^{4,5} 3,843,138	3,294	¹ 327,909	¹ 324,615	771	9,827	10,598	577,168
1928	3,838,926	40,982	1,246	42,228	39,691	380	40,071	617,239
1929	3,859,880	55,929	¹ 12,282	43,647	55,642	¹ 1,070	54,572	671,811
1930	3,865,616	48,110	¹ 1,433	46,677	47,974	¹ 196	47,778	719,589
1931	3,870,131	43,139		43,139	42,739	253	42,992	762,581
1932	3,868,177	⁷ 8,051	¹ 1,914	6,137	7,423	¹ 1,625	5,798	768,379
1933	3,872,085	⁷ 1,101	¹ 5,916	¹ 4,815	902	¹ 4,923	¹ 4,021	764,358
1934	⁶ 3,730,755	⁷ 1,315	¹ 263	1,052	1,055	¹ 198	857	765,215
1935	3,732,144	^{7,8} 156,723	¹ 409	⁸ 156,314	⁸ 156,723	¹ 210	⁸ 156,513	921,728
1936	3,728,541	⁷ 2,071	¹ 121	1,950	1,860		1,860	923,588
1937	3,734,605	⁷ 23,537	¹ 1,085	22,452	23,357	¹ 800	22,557	946,145
1938	3,734,605	46,686		46,686	46,469	176	46,645	992,790
1939	3,734,605	46,710		46,710	46,360	137	46,497	1,039,287
1940	3,737,706	46,387		46,387	46,233	110	46,343	1,085,630
1941	3,739,356	44,346		44,346	44,294	90	44,384	1,130,014
1942	3,737,649	44,622	¹ 1,422	43,200	44,622	¹ 983	43,639	1,173,653
1943	⁹ 3,816,569	50,502		50,502	50,502		50,502	1,224,155
1944	⁹ 3,899,086	57,941	¹ 102	57,839	57,941	¹ 102	57,839	1,281,994
1945	⁹ 3,843,231	63,844	¹ 2,124	61,720	63,844	¹ 2,124	61,720	1,343,714
1946	3,843,231	68,508		68,508	68,508		68,508	1,412,222
1947	3,843,212	71,882		71,882	71,882		71,882	1,484,104
1948	3,843,212	77,058		77,058	77,058		77,058	1,561,162
1949	3,843,212	86,304		86,304	86,304		86,304	1,647,466
1950	3,843,212	94,300		94,300	94,300		94,300	1,741,766
1951	3,843,212	96,569		96,569	96,569		96,569	1,838,335
1952	¹⁰ 3,761,094	99,858		99,858	99,858		99,858	1,938,193
1953	3,761,094	101,358		101,358	101,358		101,358	2,039,551
1954	3,761,094	101,598		101,598	101,598		101,598	2,141,149
1955	¹¹ 3,188,635	78,798		78,798	78,798		78,798	2,219,947
1956	3,188,635	74,388		74,388	74,388		74,388	2,294,335
1957	3,188,635	67,433		67,433	67,433		67,433	2,361,768
1958	3,188,446	62,095		62,095	62,095		62,095	2,423,863
1959	3,188,446	56,339		56,339	56,339		56,339	2,480,202
1960	3,188,446	53,017		53,017	53,017		53,017	2,533,219
1961	¹² 3,193,696	56,992		56,992	56,992		56,992	2,590,211
1962	¹² 3,189,400	46,659		46,659	46,659		46,659	2,636,870
1963	3,189,400	49,309		49,309	49,309		49,309	2,686,179
1964	¹³ 3,227,579	47,717		47,717	47,717		47,717	2,733,896
1965	3,227,579	56,897		56,897	56,897		56,897	2,790,793
1966	3,226,746	56,607		56,607	56,607		56,607	2,847,400
1967	3,226,746	53,968		53,968	53,968		53,968	2,901,368
1968	3,226,746	45,290		45,290	45,290		45,290	2,946,658
1969	3,226,746	39,993		39,993	39,993		39,993	2,986,651
Total		3,555,157	-568,505	2,986,651	2,913,391	73,260	2,986,651	

¹ Decrease.² Reclamation Extension Act, Aug. 13, 1914, delinquent charges funded.³ Temporary relief acts Mar. 31, 1922, Feb. 28, 1923, and May 9, 1921.⁴ Increase in obligation due to funding of delinquent operation and maintenance charges and penalties, and penalties on delinquent construction charges, to be paid as construction.⁵ 1927 District contract III-88.⁶ Decrease in obligation due to adjustment of supplemental construction from public notice rates to actual cost.⁷ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Charges deferred for calendar years 1931.

\$45,993; 1932, \$43,649; 1933, \$42,090; 1934, \$41,849; 1935, \$40,189; 1936, \$20,299.

⁸ Includes accumulated profits from rental of lands and sale of town lots, \$156,111.⁹ Increase of obligation due to adding value of water rights for lands sold under act of May 16, 1930. Adjustment decrease in 1945 due to rejection of some sale contracts by Bureau of Land Management.¹⁰ Reduced by excess operation and maintenance receipts of \$82,118.¹¹ 1955 amendatory District contract.¹² Land reclassification.¹³ R&B contract.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—SHOSHONE IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1908	\$1,548	\$741
1909	8,450	8,859
1910	8,588	5,156
1911	19,754	18,615
1912	18,938	21,428
1913	10,856	2,548
1914	21,929	32,877
1915	25,203	14,629
1916	17,848	23,404
1917	24,251	23,258
1918	28,802	27,653
1919	47,487	43,664
1920	55,746	55,212
1921	66,708	37,369
1922	83,153	36,583
1923	46,984	20,460
1924	40,508	16,898
1925	20,323	19,026
1926	39,899	33,154
1927	¹ 136,143	1,769
1928	528	2,972
1929	¹ 12	4,655
1930	1,318	1,622
1931	1,813	1,813
1932	1,213	1,322
1933	1,520	1,525
1934	1,849	1,849
1935	1,456	1,456
1936	1,067	1,067
1937	592	592
1938	1,577	1,577
1939	1,474	1,474
1940	2,284	1,941
1941	1,851	2,194
1942	2,147	2,147
1943	2,715	2,715
1944	1,658	1,658
1945	1,704	1,704
1946	1,479	1,479
1947	1,998	1,998
1948	1,091	1,091
1949	1,363	1,363
1950	1,617	1,617
1951	1,783	1,783
1952	2,287	2,287
1953	1,180	1,180
1954	2,207	2,207
1955	2,699	2,699
1956	1,411	1,411
1957	1,560	1,560
1958	1,641	1,641
1959	1,689	1,689
1960	1,818	1,818
1961	1,027	1,027
1962	1,141	1,141
1963	661	661
1964	1,453	1,453
1965	900	900
1966	1,736	1,736
1967	1,658	1,658
1968	842	842
1969	1,548	1,548
Total	514,375	514,375

¹ Decrease. Accruals after 1927 for O&M of storage works.

HEART MOUNTAIN DIVISION

The Heart Mountain division is the latest of four

irrigation divisions of the Shoshone project to be constructed. Construction was started in 1936, and the distribution system was completed in 1948 except for canal lining and drainage. Project works, consisting of Buffalo Bill Dam and Reservoir and the Shoshone Canyon conduit and appurtenant works serve the Heart Mountain division and will serve, in addition, the potential Shoshone Extensions unit of the Missouri River Basin project. There are 26,423 acres of irrigable land in the Heart Mountain division.

The total estimated cost of constructing the Heart Mountain division is \$7,185,360. This cost covers the Heart Mountain share of features to be used jointly by the Heart Mountain division, the Power division, and the Shoshone Extensions unit, and \$167,790 preconstruction costs of the Ralston Flat and North Cody Bench areas.

Public notices of October 3, 1946, July 7, 1947, and March 18, 1949, opening public land in Heart Mountain division for settlement, provide that when the total construction charge has been determined and allocated by the Secretary of the Interior, a supplementary notice announcing the total per acre charge would be issued. A repayment contract with the Heart Mountain Irrigation District, dated December 1, 1958, provides for an obligation of \$7,000,000. The annual installment is calculated at the rate of \$2.35 per acre with the option of applying a variable factor based on economic conditions. A total of \$560,743 had been repaid at June 30, 1969.

Responsibility for operation and maintenance was transferred to the Heart Mountain Irrigation District on January 1, 1960. Operations are performed jointly with the Shoshone Irrigation District.

PUBLIC NOTICES AND CONTRACT

- 1946, October 3: Public notice of land opening. Per acre charge to be issued in supplementary notice.
- 1947, July 7: Public notice of land opening. Per acre charge to be issued in supplementary notice.
- 1949, March 18: Public notice of land opening. Per acre charge to be issued in supplementary notice.
- 1958, December 1: Contract with Heart Mountain Irrigation District for \$7,000,000. Annual installment of \$2.35 per acre with optional application of variable factor based on economic conditions.

Summary of status of repayment contract:

Total value of contracted repayment	\$7,000,000
Total matured charges	560,743
Total matured charges repaid	560,743
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—HEART MOUNTAIN IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1961-----	\$7,000,000	\$48,010	-----	\$48,010	\$48,010	-----	\$48,010	\$48,010
1962-----	7,000,000	48,103	-----	48,103	48,103	-----	48,103	96,113
1963-----	7,000,000	47,501	-----	47,501	47,501	-----	47,501	143,614
1964-----	7,000,000	58,048	-----	58,048	58,048	-----	58,048	201,662
1965-----	7,000,000	39,509	-----	39,509	39,509	-----	39,509	241,171
1966-----	7,000,000	49,388	-----	49,388	49,388	-----	49,388	290,559
1967-----	7,000,000	52,942	\$116,504	169,446	52,942	\$116,504	169,446	460,005
1968-----	7,000,000	48,448	-----	48,448	48,448	-----	48,448	508,453
1969-----	7,000,000	52,290	-----	52,290	52,290	-----	52,290	560,743
Total-----	-----	444,239	116,504	560,743	444,239	116,504	560,743	-----

OPERATION AND MAINTENANCE ASSESSMENTS HISTORY—HEART MOUNTAIN IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1960-----	\$1,582	\$1,582
1961-----	992	992
1962-----	916	916
1963-----	1,109	1,109
1964-----	3,517	3,517
1965-----	637	637
1966-----	1,554	1,554
1967-----	1,441	1,441
1968-----	1,489	1,489
1969-----	2,162	2,162
Total-----	15,399	15,399

WILLWOOD DIVISION

The total cost of constructing the Willwood division is \$1,861,732, which includes \$380,000 for rehabilitation and betterment of the irrigation works in the division. Of the total amount of construction cost, \$32,043 has been charged off by the acts of May 6, 1949, and August 13, 1953.

Operation and maintenance of the division was transferred to the Willwood Irrigation District on January 1, 1949, under terms of an interim contract, pending approval of the repayment contract, dated May 13, 1949.

This division consists of 11,313 acres of irrigable land.

Repayment contracts.—The Willwood Irrigation District construction repayment contract, signed May 13, 1949, provides for the repayment of a construction charge obligation of \$1,500,000. An amendatory contract, dated June 30, 1952, provides for the payment of \$380,000 for additional rehabilitation and betterment

work. Repayment is to be made in annual installments of \$27,400. The contract also provided that the District may elect to pay annual installments in accordance with a variable agricultural price-parity formula with base annual installments of \$24,600.

The District shares in the cost of operating the reserved works.

PUBLIC NOTICES AND CONTRACTS

1927, May 11: Public notice. Homesteaders required to pay a certain construction charge per acre in 20 graduated annual installments.

1928, June 25: Public notice. Repayment of certain construction charges per acre in 20 graduated annual installments.

1929, May 10: Public notice. Repayment of certain construction charges per acre in 20 graduated annual installments.

1931, April 22: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.

1935, June 18: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.

1938, June 22: Public notice. Repayment of certain construction charges per acre in 20 graduated installments.

1949, May 13: Contract I1r-1540 with Willwood Irrigation District. Repayment of \$1,500,000 construction charge obligation in annual installments of \$27,400 beginning in 1951.

1952, June 30: Amendatory repayment contract I79r-2445 increased District's obligation by \$380,000 to cover additional rehabilitation and betterment work. Repayment of annual rate of \$27,400 to commence on completion of payment on May 13, 1949, contract.

The summary of status of the Willwood division repayment contracts:

Total value of contracted repayment	\$1,847,957
Total matured charges	519,646
Total matured charges repaid	519,646
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—WILLWOOD IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1950-----	\$1,500,000							
1951-----	1,500,000	\$27,400		\$27,400	\$27,400		\$27,400	\$27,400
1952-----	¹ 1,490,157	27,400		27,400	27,400		27,400	54,800
1953-----	² 1,870,157	27,400		27,400	27,400		27,400	82,200
1954-----	1,870,157	27,400		27,400	27,400		27,400	109,600
1955-----	1,870,157	27,400		27,400	27,400		27,400	137,000
1956-----	1,870,157	27,400		27,400	27,400		27,400	164,400
1957-----	1,870,157	27,400	³ \$8,376	19,024	27,400	³ \$8,376	19,024	183,424
1958-----	1,841,903	27,400		27,400	27,400		27,400	210,824
1959-----	1,841,903	23,315		23,315	23,315		23,315	234,139
1960-----	1,841,903	27,400		27,400	27,400		27,400	261,539
1961-----	1,841,903	27,400		27,400	27,400		27,400	288,939
1962-----	1,841,903	27,400		27,400	27,400		27,400	316,339
1963-----	1,841,902	27,400		27,400	27,400		27,400	343,739
1964-----	1,847,957	28,882		28,882	28,882		28,882	372,621
1965-----	1,847,957	27,955		27,955	27,955		27,955	400,576
1966-----	1,847,957	27,408		27,408	27,408		27,408	427,984
1967-----	1,847,957	27,400	⁴ 7,503	34,903	27,400	⁴ 7,503	34,903	462,887
1968-----	1,847,957	29,334		29,334	29,334		29,334	492,221
1969-----	1,847,957	27,425		27,425	27,425		27,425	519,646
Total--		520,519	-873	519,646	520,519	-873	519,646	

¹ Chargeoff, \$9,843, act of May 6, 1949.² District contract amended to provide for rehabilitation and betterment.³ Maturities transferred, Public Law 253 (act of Aug. 13, 1953), \$9,109.66; construction charge highway right-of-way collected \$733.50; total, \$8,376.16.⁴ Distribution of revenues accrued prior to District taking over O&M.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—WILLWOOD IRRIGATION DISTRICT

Fiscal year	Accruals	Collections
1928-----	\$2,415	\$2,415
1929-----	3,841	3,841
1930-----	4,655	4,655
1931-----	5,581	5,581
1932-----	5,805	5,805
1933-----	5,983	5,983
1934-----	5,546	5,546
1935-----	9,392	9,392
1936-----	10,110	10,110
1937-----	13,177	13,177
1938-----	13,455	13,455
1939-----	14,200	14,200
1940-----	14,257	14,257
1941-----	14,011	14,011
1942-----	15,204	15,204
1943-----	15,184	15,072
1944-----	19,649	19,658
1945-----	19,677	19,570
1946-----	19,651	19,651
1947-----	22,463	22,463
1948-----	22,493	22,493
1949-----	600	600
1950-----	680	680
1951-----	1,099	1,099
1952-----	1,299	1,299
1953-----	636	636
1954-----	900	900
1955-----	1,207	1,207
1956-----	773	773
1957-----	838	838
1958-----	846	846
1959-----	844	844
1960-----	981	981
1961-----	331	331
1962-----	369	369
1963-----	213	213
1964-----	469	469
1965-----	290	290
1966-----	560	560
1967-----	498	498
1968-----	262	262
1969-----	486	486
Total-----	270,930	270,720

POWER DIVISION

The total estimated cost of the power facilities is \$4,322,851, which includes the Power division's share of the storage works. The Power division will also repay from surplus power revenues a share of the storage works utilized by irrigation and allocated as noninterest bearing investment from all divisions of the project; for settlement of claims by the Shoshone and Deaver Irrigation Districts to a share of net power revenues and a share of the Shoshone Canyon conduit to be repaid as yearly rentals.

The Power division is operated by Government forces.

The costs to the division are summarized as follows:

Construction	\$3,536,324
Shoshone Canyon conduit rentals	314,450
Irrigation costs to be repaid from power revenues ..	1,313,433
Storage system allocated to power	786,527
Total	<u>5,950,734</u>

PAYOUT OF CONSTRUCTION COSTS

Deaver Irrigation District.—On June 30, 1969, the unmatured balance of \$1,439,525 amounted to 80 per cent of the district's total obligation. The District's repayment contract provides that the annual installment of \$7,500 will be increased by 62.5 cents per acre in excess of 12,000 acres of pay class land in the District. There are currently 14,359.5 acres of pay class land in the District paying an annual construction charge of \$8,975. The current installment may be modified also by the optional application of a formula to vary annual payments with economic conditions.

Shoshone Irrigation District.—Ninety-four percent of the District's repayment obligation had been paid on June 30, 1969, leaving \$240,095 as the remaining unmatured balance. Since the contract provides for differential payments by land class and since the District obligation is the summation of the obligations of individual tracts, the class 1 and 2 lands become paid up first. At this time, 70 percent of the irrigable lands are entirely paid up. Most of the irrigable acreage will be paid up within the next few years. The actual rate of payout will vary also with gross crop value per acre, which determines the annual acre payment.

Willwood Irrigation District.—About 28 percent of the District's obligation has been paid thus far, leaving \$1,328,362 as the unmatured balance. If the optional basis for varying annual payments with economic conditions is not exercised, the fixed annual installment of \$27,400 per year will pay out the remaining unmatured obligation in 48 years.

Heart Mountain Irrigation District.—Eight percent of the District's repayment obligation had been paid at June 30, 1969, leaving an unmatured balance of \$6,439,257. With annual payment of \$58,000, payout will be completed in 2080.

REPAYMENT OF RECLAMATION PROJECTS

TENTATIVE ALLOCATION AND REPAYMENT OF COSTS—SHOSHONE PROJECT

Item	Power	Irrigation					Total
		Garland division	Frankie division	Willwood division	Heart Mountain division	Undeveloped areas	To be repaid by power and other revenues
<i>Estimated or actual costs</i>							
Joint facilities:							
Buffalo Bill Dam and Reservoir	\$786,527	\$340,500	\$170,250		\$407,987	\$919,144	\$1,313,433
Shoshone Canyon conduit					1,410,335	917,220	314,450
Heart Mountain Canal							2,327,555
Irrigation facilities:							
Construction		3,355,783	2,732,482	\$1,422,877	4,614,995	51,297	12,177,434
Rehabilitation and betterment			247,983	380,000			627,983
Power facilities	3,536,324						3,536,324
Subtotal, plant, property and equipment	4,322,851	3,696,283	3,150,715	1,802,877	6,433,317	1,887,661	22,921,587
Corollary construction costs:							
Investigations future development		6,332				53,334	59,666
Transitional development		12,389	29,973	29,085	544,862		616,309
Deferred maintenance—R&B		57,305	24,560				81,865
Property transfers		5,070	20,925	16,576	39,391		81,962
Costs of negotiating amend. contracts (chargeoff)			30,237	13,194			43,431
Nonreimbursable expenses:							
Administration P.L. 258						96,723	96,723
Adjustment Surveys Act of December 5, 1924						4,302	4,302
NIRA, Washington Admin.						307	307
Subtotal		81,096	105,695	58,855	584,253	154,666	984,565
Total cost ¹	4,322,851	3,777,379	3,256,410	1,861,732	7,017,570	2,042,327	23,906,152
Other charges:							
O&M deficit			193,322	29,982			318,601
Interest and penalties		95,297	155				96,140
Interest and penalties		95,985					
Subtotal		191,282	193,477	29,982			414,741
Total ¹	4,322,851	3,968,661	3,449,887	1,891,714	7,017,570	2,042,327	24,320,893
<i>Repayments and other credits</i>							
Repayment realized:							
Repayment contracts matured		2,986,651	355,828	519,645	560,743		4,422,867
Contributions	7,250		1,900		2,625	2,000	13,775
Power revenues	3,857,908						4,378,721
Income from sales and rentals					17,565	112,916	130,481
Miscellaneous income		15,622	37,069	7,464			60,155
Reserve for depreciation	439,193						439,193
Subtotal	4,304,351	3,002,273	394,797	527,109	580,933	114,916	9,445,192
						520,813	

Anticipated future repayment:									
Repayment contracts—unmatured	240,095	1,439,525	1,328,312	6,439,257	---	---	---	1,266,199	9,447,189
Power revenues and rental	---	---	---	---	---	---	---	---	1,313,885
Increase in reserve for depreciation	47,686	---	---	---	---	---	---	---	(29,186)
Future development	(29,186)	---	---	---	---	---	---	---	217,196
Subtotal	6,427	---	---	---	---	---	---	210,769	---
Subtotal	246,522	1,439,525	1,328,312	6,439,257	210,769	1,266,199	10,949,084	---	---
Total repayment ¹	3,248,795	1,834,322	1,855,421	7,020,190	325,685	1,787,012	20,394,276	---	---
Other credits:									
Repayment obligations transferred—MRB	---	---	---	---	---	---	---	---	---
Repayment reductions authorized	---	---	---	---	---	---	---	---	---
Contract negotiation costs	719,866	1,585,610	32,043	---	1,695,952	---	1,695,952	---	---
Nonreimbursable costs	---	30,237	13,194	---	---	---	43,431	---	---
Subtotal	719,866	1,615,847	45,237	---	101,332	---	101,332	---	---
Subtotal	---	---	---	---	1,797,284	---	4,178,234	---	---
Total repayments and other credits ¹	3,968,661	3,450,169	1,900,658	7,020,190	2,122,969	1,787,012	24,572,510	---	---
Surplus	---	282	8,944	2,620	80,642	159,129	251,617	---	---

¹ Excludes R&B contract of \$2,000,000 for rehabilitation of irrigation system. No funds appropriated for this work to date.

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY—SHOSHONE PROJECT

Fiscal year	INVESTMENT REPAYMENT FROM POWER REVENUES							IRRIGATION REVENUES			RECAPITULATION	
	Net operating revenue	Components of net power revenues		Other credits and contributions	Interest bearing		Interest free	Repayment revenue	Investment repayment			
		Interest on investment	Excess over interest		Electric plant in service	Balance to be repaid			Revenues credited to irrigation repayment	Costs allocated to irrigation		Balance to be repaid
1930	\$205,789	---	\$205,789	---	---	\$879,312	\$673,523	---	\$2,325,411	\$9,168,235	\$6,842,824	\$2,531,200
1931	26,774	---	26,774	---	---	879,312	646,749	---	42,696	9,569,302	7,201,195	69,470
1932	21,109	---	21,109	---	---	879,312	625,640	---	7,978	9,633,338	7,257,253	29,087
1933	30,909	---	30,909	---	---	879,312	594,731	---	---	9,657,200	7,285,136	26,888
1934	35,724	---	35,724	---	---	883,037	562,732	---	507	9,670,967	7,298,396	36,233
1935	54,564	---	54,564	---	---	883,037	508,168	---	156,574	9,712,102	7,182,957	211,138
1936	69,769	---	69,769	---	---	883,037	438,399	---	1,860	9,737,752	7,206,747	71,629
1937	72,930	---	72,930	---	---	883,037	365,469	---	22,618	9,771,951	7,218,328	95,548
1938	73,640	---	73,640	---	---	883,037	291,829	---	46,707	9,792,785	7,192,455	120,347
1939	75,000	---	75,000	---	---	1,380,098	713,890	---	46,558	9,313,313	6,666,425	121,558
1940	78,225	---	56,808	---	---	1,380,098	657,082	---	46,466	9,337,316	6,643,962	124,691
1941	71,679	---	51,967	---	---	1,380,098	605,115	---	44,384	9,356,493	6,618,755	116,063
1942	99,189	---	81,036	---	---	1,663,721	807,702	---	43,884	9,373,925	6,592,303	143,073
1943	157,284	---	133,053	---	---	1,731,286	742,214	---	51,072	9,393,498	6,560,804	208,356
1944	167,997	---	145,731	---	---	1,732,623	597,820	---	67,412	9,392,161	6,492,055	235,409
1945	160,583	---	142,648	---	---	1,733,383	455,932	---	73,219	9,421,248	6,447,923	233,802
1946	164,450	---	13,678	---	---	1,733,506	305,283	---	81,052	9,447,079	6,392,702	245,502
1947	178,998	---	9,158	---	---	1,772,021	173,958	---	82,619	9,428,519	6,291,523	261,617
1948	208,931	---	5,219	---	---	1,772,557	---	---	86,515	14,666,635	11,443,124	295,446
1949	248,081	---	203,712	---	---	3,604,984	1,555,128	---	264,017	14,836,540	11,349,012	512,098
1950	247,070	---	199,540	---	---	3,695,195	1,445,799	---	98,975	14,700,138	11,113,635	346,045
1951	144,336	---	100,085	---	---	3,751,781	1,402,300	---	128,469	14,550,293	10,835,321	272,805
1952	306,789	---	263,843	---	---	4,007,513	1,394,189	---	147,662	14,365,747	10,503,113	454,451
1953	301,352	---	258,650	---	---	4,004,643	1,132,669	---	136,433	16,498,404	12,499,337	437,785
1954	397,031	---	362,174	---	---	3,947,735	713,587	---	177,565	17,254,746	13,078,114	574,596
1955	221,780	---	199,496	---	---	3,920,153	486,509	---	112,294	18,856,291	14,567,365	334,074
1956	---	---	16,018	---	---	3,938,105	520,479	---	556,537	18,648,382	13,802,919	555,991
1957	133,998	---	117,507	---	---	3,908,262	373,129	---	129,576	18,757,098	13,782,059	263,574
1958	82,771	---	70,701	---	---	3,911,108	305,274	---	146,874	18,960,758	13,886,334	229,645
1959	---	---	---	---	---	3,912,920	404,635	---	97,681	19,105,928	13,886,334	10,167
1960	6,655	---	---	---	---	3,911,284	409,360	---	88,702	18,721,484	13,413,188	95,357
1961	---	---	---	---	---	4,349,701	894,744	---	117,303	19,473,939	14,048,340	83,493
1962	112,379	---	84,660	---	---	4,345,212	800,709	---	195,285	19,588,218	13,967,334	312,550
1963	390,256	---	628,855	---	---	4,345,147	171,789	---	1,838,898	19,657,168	12,197,386	2,229,154
1964	---	---	---	---	---	4,288,920	169,517	---	144,097	19,712,292	12,108,413	95,296
1965	51,165	---	56,319	---	---	4,309,909	94,447	---	287,324	19,892,055	12,000,852	388,469
1966	101,145	---	96,059	---	---	4,330,532	28,559	---	152,459	19,926,693	11,883,031	241,803
1967	89,344	---	86,511	---	---	4,330,532	---	---	---	19,926,696	11,209,267	690,231
1968	83,951	---	83,094	---	---	4,317,580	---	---	\$67,487	19,926,696	11,209,267	690,231
1969	158,385	---	158,385	---	---	4,321,851	---	---	154,114	19,929,121	10,940,247	275,716
1970	143,048	---	143,048	---	---	4,304,351	---	---	160,548	19,952,976	10,633,901	312,701
Subtotal	4,948,880	269,630	4,679,250	7,250	---	4,304,351	---	---	8,936,926	19,952,976	10,633,901	13,893,056
1970	85,535	---	85,535	---	---	4,332,851	---	---	125,670	19,998,042	10,486,262	211,205
1971	60,894	---	60,894	---	---	4,332,851	---	---	117,035	19,998,042	10,308,333	177,929
1972	74,664	---	74,664	---	---	4,332,851	---	---	117,000	19,998,042	10,116,669	191,664
1973	68,461	---	68,461	---	---	4,332,851	---	---	116,860	19,998,042	9,931,348	185,321
1974	59,744	---	59,744	---	---	4,332,851	---	---	111,412	19,998,042	9,760,192	171,156

1975	40,793	---	---	---	4,332,851	---	---	---	105,012	19,998,042	9,614,397	145,805
1976	16,587	---	---	---	4,332,851	---	---	---	83,812	19,998,042	9,513,988	100,399
1977	803	---	---	---	4,332,851	---	---	---	83,812	19,998,042	9,429,373	84,615
1978	4,366	---	---	---	4,332,851	---	---	---	89,812	19,998,042	9,335,195	94,178
1979	15,244	---	---	---	4,332,851	---	---	---	89,812	19,998,042	9,230,139	105,056
1980	23,979	---	---	---	4,332,851	---	---	---	89,812	19,998,042	9,116,348	113,791
1981	30,927	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,995,609	120,739
1982	36,456	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,869,341	126,268
1983	37,336	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,742,193	127,148
1984	40,689	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,611,692	130,501
1985	43,170	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,478,710	132,982
1986	44,881	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,344,017	134,693
1987	46,581	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,207,624	136,393
1988	47,890	---	---	---	4,332,851	---	---	---	89,812	19,998,042	8,069,922	137,702
1989	46,787	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,933,323	136,599
1990	42,775	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,800,736	132,587
1991	37,933	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,672,991	127,745
1992	31,218	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,551,961	121,030
1993	27,744	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,434,405	117,556
1994	31,218	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,313,375	121,030
1995	39,524	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,184,039	129,336
1996	46,923	---	---	---	4,332,851	---	---	---	89,812	19,998,042	7,047,304	136,735
1997	53,719	---	---	---	4,332,851	---	---	---	89,812	19,998,042	6,903,773	143,531
1998	55,735	---	---	---	4,332,851	---	---	---	89,812	19,998,042	6,758,226	145,547
1999	52,179	---	---	---	4,332,851	---	---	---	89,812	19,998,042	6,616,235	141,991
Total	6,193,635	269,630	5,924,005	7,250	4,332,851	---	---	---	11,773,403	19,998,042	6,616,235	17,974,288

SILT PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

The construction of the Silt project in westcentral Colorado was authorized by Congress April 11, 1956 (70 Stat. 105), as a participating project with the Colorado River Storage project. It is located between the towns of Rifle and Silt in Garfield County north of the Colorado River.

The project was developed to furnish a full irrigation supply to 2,118 acres and a supplemental supply to 4,479 acres of irrigable land. Principal project features include Rifle Gap Dam and Reservoir with 15,000 acre-feet capacity, Dry Elk Valley lateral that extends for 1.8 miles, Silt pumping plant with 32 cubic feet per second capacity, Silt pump canal extends for 8.1 miles, Davie Ditch reconstruction extends approximately 6 miles, Grass Valley canal rehabilitation lining of 7,500 feet, and land drains as needed.

Total estimated cost of the project is \$7,801,006. Cost of other agencies under section 8 of the authorizing act totals an additional \$84,000.

The present irrigable area for service is 6,591 acres, with 5,062 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$600,750 and \$118.68, respectively.

Repayment contracts.—The reimbursable portion of the irrigation construction costs to be repaid by the Silt Water Conservancy District is \$960,000 in 50 successive equal annual installments commencing the year following a 3-year development period that was established January 1, 1968. Operation and maintenance by the District began January 1, 1968.

CONTRACTS AND NOTICES

1963, June 24: Contract 14-06-400-3120 with the Silt Water Conservancy District for the payment of the water users' obligation of \$960,000 in 50 successive equal annual installments.

1966, June 27: Notice to the District that the development period would commence July 1, 1968.

1967, May 29: Notice to the District that operation and main-

tenance of the project by the District would commence January 1, 1968.

1968, July 9: Amendatory contract with the Silt Water Conservancy District to increase the reserve fund for extraordinary operation and maintenance use from \$10,000 to \$13,000.

Statement of project cost and repayment:

Cost:

Plant, property, and equipment	
Rifle Gap Dam and Reservoir, etc,	\$4,934,401
Irrigation plant:	
Silt pumping plant	930,932
Davie ditch	577,789
Canals, laterals, drains	950,011
Estimated cost to complete construction . .	392,929
Subtotal plant, property, and equipment	7,786,062
Property transfers funded	14,944
Total cost	7,801,006
Costs of other agencies—section 8	84,000
Total	7,885,006

Repayment and other credits:

Repayment realized:

Contributions	16,670
Costs financed by CRDF	16,795
Miscellaneous revenues	120
Subtotal repayments realized	33,585

Anticipated future repayment:

Unmatured repayment contracts	960,000
Power revenues, Upper Colorado River Basin Fund	6,007,722
Subtotal anticipated future repayment	6,967,722
Total repayment	7,001,307

Other credits:

Nonreimbursable costs:

Fish and wildlife (includes \$11,500, section 8)	661,500
Recreation (section 8)	72,500
Highway improvement	149,699
Total repayment and other credits	7,885,006

SMITH FORK PROJECT

COLORADO RIVER STORAGE PARTICIPATING PROJECT

COLORADO

The construction of the Smith Fork project in west-central Colorado was authorized by Congress April 11, 1956 (70 Stat. 105), as a participating project with the Colorado River Storage project. It is located along the Smith Fork of the Gunnison River near Crawford, Colo.

The project will provide full irrigation water to 1,423 acres of land and a supplemental water supply to 8,056 acres. Principal project features include Crawford Dam and Reservoir, Aspen Canal, Smith Fork Feeder Canal, and Smith Fork Diversion Dam. Land drains may be constructed later, if required. Recreation facilities will be provided at Crawford Reservoir.

Total estimated cost of the project is \$7,801,006. Cost of other agencies under section 8 of the authorizing act totals an additional \$130,800.

Repayment contracts.—Under terms of the contract, dated May 10, 1960, the District's obligation of \$1,025,000 is repayable in 50 successive equal annual installments. Irrigation will repay \$875,000, and \$150,000 will be repaid from ad valorem tax receipts. The reimbursable irrigation cost balance will be returned by net power revenues from the Upper Colorado River Basin Fund apportioned to Colorado totaling \$3,205,370 and \$71,606 from the Colorado River Development Fund.

Project water was first available in 1963 on a rental

basis. The project works were transferred to the District for operation and maintenance on January 1, 1964, per letter dated December 20, 1963.

The present irrigable area for service is 9,479 acres, with 8,898 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$536,607 and \$60.31 respectively.

CONTRACT AND NOTICES

1960, May 10: Contract 14-06-400-1886 with the Crawford Water Conservancy District. Repayment obligation \$1,025,000, payable in 50 successive equal annual installments.

1962, December 14: Notice to Crawford Water Conservancy District announcing commencement of development period to be January 1, 1964, and operation and maintenance costs for first year of the development period as \$14,000. Operation and maintenance charges are due December 31 each year facilities are operated by the United States.

1963, June 6: Notice to Crawford Water Conservancy District announcing development period charges as \$14,000 for calendar year 1965.

Summary of status of repayment contract:

Total value of repayment contract	\$1,025,000
Total matured charges	41,000
Total matured charges repaid	41,000
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1968-----	\$1,025,000	\$20,500	-----	\$20,500	\$20,500	-----	\$20,500	\$20,500
1969-----	1,025,000	20,500	-----	20,500	20,500	-----	20,500	41,000
Total -----	-----	41,000	-----	41,000	41,000	-----	41,000	-----

REPAYMENT OF RECLAMATION PROJECTS

Statement of project cost and repayment:

Cost:

Crawford Dam and Reservoir	\$3,361,344
Smith Fork feeder canal and diversion dam ..	420,574
Aspen canal	799,359
Other physical property ¹	98,118

Subtotal plant, property, and equipment	4,679,395
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Corollary construction costs:

Investigations	3,389
Property transfers funded	2,953

Total cost	4,685,737
Costs other agencies—section 8	133,800

Total	4,819,537
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Repayment and other credits:

Repayments realized:

Costs financed by C.R.D.F.	71,606
Repayment contracts matured	41,000

Subtotal repayments realized	112,606
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Anticipated future repayment:

Repayment contracts unmatured	984,000
Power revenues—Upper Colorado River Basin Fund	3,205,370

Subtotal anticipated future repayment	4,189,370
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Total repayment	4,301,976
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Other credits:

Costs to be assumed by Fruitland Mesa Project	98,118
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Nonreimbursable:

Fish and wildlife (includes \$12,900—section 8)	298,543
Recreation—section 8	120,900

Subtotal other credits	517,561
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Total repayment and other credits	4,819,537
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¹ To be transferred to Fruitland Mesa project.

SNETTISHAM PROJECT

ALASKA

CRATER-LONG LAKES DIVISION

The Snettisham project, Crater-Long Lakes division, was authorized for construction by the Secretary of the Army acting through the Chief of Engineers by the Flood Control Act of October 23, 1962, 76 Stat. 1193.

The Secretary of the Interior was authorized to operate and maintain the division and was made responsible for the disposition of electric power and energy. The functions were transferred from the Bureau of Reclamation to the Alaska Power Administration June 16, 1967.

SOLANO PROJECT

CALIFORNIA

The Solano project embraces substantial portions of the irrigable land in Solano County, California. It was found feasible and authorized by the Secretary of the Interior on November 11, 1948, pursuant to the Reclamation Project Act of 1939 (53 Stat. 1187, 1193).

The purpose of the project is to furnish supplemental irrigation water to the lands of the Solano Irrigation District and Main Prairie Water District, and domestic water supplies to the cities of Fairfield, Suisun, Vacaville, and Vallejo, and several facilities of the State of California.

Monticello Dam and Reservoir, with a capacity of 1,602,300 acre-feet, stores surplus water of Putah Creek with a provision for releases downstream for the normal recharge of ground water along the stream. Water is diverted at the Putah diversion dam into the 33.6-mile Putah South Canal to a terminal reservoir. Also included are two major wasteways. Storage of water began during construction. However, the reservoir did not fill until the spring of 1963, with the first spill occurring on April 18.

A water service contract was signed with the Solano County Flood Control and Water Conservation District on March 7, 1955. The principal member-unit contracts were executed on June 28, 1955, with several minor member-unit contracts executed during 1963.

In 1969, irrigable area for service was 69,070 acres and the acres irrigated were 48,772, with a gross crop value of \$18,437,877 and an average value per acre of \$378.04.

The project cost is \$38,937,429, excluding the cost of the distribution and drainage system constructed by the District under the loan program.

Water service contract.—Project repayment will be accomplished under the water service contract with the Solano County Flood Control and Water Conservation District, with the District operating the Putah South Canal and delivering water to the member units. The

United States operates the diversion dam and Monticello Dam. A water rate of \$15 per acre-foot for all water delivered to municipalities or to areas of less than 2 acres had been established. Varying water rates have been established for the irrigation water. These rates are \$1.55 per acre-foot during the first 2 years, \$2.05 during the next 3 years, and \$2.65 for the remainder of the payout period. Water deliveries began in May 1959. Using these water rates and the estimated water deliveries that are shown in the contract, it is estimated that the project will be repaid in approximately 50 years and that interest at 2.5 percent on the unpaid balance allocated to municipal and industrial water will be returned to the Treasury.

Distribution system loan.—Under Public Law 130 of July 4, 1955 (69 Stat. 244), as amended, the Bureau of Reclamation is authorized to make interest-free loans for the construction of irrigation distribution systems. The Solano Irrigation District executed a \$12,302,000 contract with the United States, under which it constructed a distribution and drainage system. This was the first contract executed under Public Law 84-130. Due to design changes and increased costs, this contract was amended on September 8, 1961, to increase the amount of the loan to \$15,050,480. Construction of the distribution system was completed in 1966.

Rehabilitation and betterment.—Contract 14-06-200-4361A was executed to enable the Solano Irrigation District to rehabilitate a leaking pipeline system, install ground water wells and drainage pumping plant, and to extend concrete drains and seepage controls.

CONTRACTS

1955, March 7: Contract with Solano County Flood Control and Water Conservation District for delivery of irrigation and municipal water for 40 years beginning May 15, 1959.

Irrigation water—Class 1:

Maximum rate (per acre-foot)	\$2.65
Minimum delivery	0
Maximum delivery	219,800 acre-feet
Municipal water supply:	
Maximum rate (per acre-foot)	\$15.00
Minimum delivery	0
Maximum delivery	27,200 acre-feet

1969, April 2: Contract 14-06-200-4361A with Solano Irrigation District for \$2,000,000 for rehabilitation of its distribution system.

Cost and repayment summary:

Cost:

Multipurpose plant	\$38,935,143
Corollary costs, investigations	2,286
Total cost	<u>38,937,429</u>

Allocation of cost:

Reimbursable:

Irrigation	32,661,293
Municipal and industrial	5,141,130
Total reimbursable	<u>37,802,423</u>

Nonreimbursable:

Flood control	1,132,000
Recreation	3,006

Total nonreimbursable	<u>1,135,006</u>
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Repayment:

Repayment realized, June 30, 1969:

Net income, water sales	\$2,133,318	\$586,051
Reserves for depreciation	6,611	187

Total realized	2,139,929	586,238
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Repayment anticipated:

Net income, water sales	23,071,971	12,004,285
Total repayment	<u>25,211,900</u>	<u>12,590,523</u>

	<i>Irrigation</i>	<i>Municipal and industrial</i>
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SOUTHERN NEVADA WATER PROJECT

NEVADA

Construction of the Southern Nevada Water project was authorized by the act of October 22, 1965 (79 Stat. 1068), for the purpose of delivering municipal and industrial water to municipalities and industrial centers within Clark County, Nevada. The principal features of the project when completed will consist of intake facilities located in Lake Mead, eight pumping plants, 4 miles of concrete-lined tunnel, 7 miles of main aqueduct, 37 miles of laterals, and storage and regulatory facilities. Water service will be provided to the cities of Las Vegas, North Las Vegas, Henderson, and Boulder City. In addition, water service will be provided to Nellis Air Force Base.

The project is to be built in three stages for an estimated construction cost of \$83,254,000. Construction of the first stage was initiated in March 1968 with completion expected in May 1971. Delivery of water under the first stage will reach about 132,000 acre-feet per year after a build-up period of about 20 years. Construction of subsequent stages will increase this quantity to about 300,000 acre-feet annually.

Pursuant to Nevada Revised Statutes, the Colorado River Commission of Nevada is authorized to request the United States to construct water service facilities and to obligate itself and the State of Nevada to repay the United States for the cost of constructing such facilities. On August 25, 1967, a contract was executed between the United States and the Commission for delivery of water and construction of project works. At the same time, subsidiary repayment contracts between the Commission and each of the cities of Henderson, Las Vegas, North Las Vegas, and Boulder City were executed. These subsidiary contracts were approved by the Secretary of the Interior.

Estimated construction cost for the first stage, including interest during construction, is \$49,109,000. The costs are all allocated to municipal and industrial water and except for that portion of the construction costs allocable to supplying water to Nellis Air Force

Base, estimated to be \$1,408,740, are reimbursable and are to be repaid to the United States with interest at the rate of 3¼ percent per annum on the unpaid balance over a 50-year period.

CONTRACT

1967, August 25: Contract 14-06-300-1974 with the Colorado River Commission of Nevada for delivery of water by the United States and for construction of the Southern Nevada Water project. Estimated \$47,219,000 construction costs (including interest during construction) to be repaid in 50 successive annual payments with interest at the rate of 3¼ percent per annum. Initial payment to be on March 1 of the calendar year succeeding the year in which construction is substantially completed.

Statement of project cost and repayment:

Cost:	Municipal and industrial water
First-stage construction:	
Main aqueduct and associated pumping plants	
1, 1A, and 2	\$25,613,000
Las Vegas lateral, Henderson lateral, and pumping plant 3	8,372,000
North Las Vegas lateral, Whitney lateral, and pumping plant 6	7,669,000
Boulder City lateral and pumping plants 4, 5, and 7	4,228,000
Permanent operating facilities	765,000
	<hr/> 46,647,000
Interest during construction (3¼ percent) ..	2,254,000
Subtotal—first stage	48,901,000
Deferred construction—future stages	34,353,000
Total cost	<hr/> 83,254,000 <hr/>
Repayment:	
Repayment and other credits:	
Repayment contracts unmatured	47,219,000
Future repayment contracts	34,341,965
Contributions *	6,900
Financed by Colorado River Development Fund	277,395
Total repayment	<hr/> 81,845,260 <hr/>

Other credits:

Costs of facilities serving Nellis Air

Force Base 1,408,740

Total repayment and other credits 83,254,000

* Colorado River Commission of Nevada, for reconnaissance investigations and studies on increasing rate of water delivery and the attendant effects thereof (contract No. 14-06-300-1780, Feb. 16, 1966).

PAYOUT STUDY—FIRST STAGE

Payment date March 1	Gross revenue	Operation, maintenance and replacement	Interest at 3.25 percent	Payment on principal	Unpaid balance
1969					\$47,219,000
1970	\$1,349,700	\$643,000	\$1,534,600	\$- 827,900	48,046,900
1971	1,606,100	713,000	1,561,500	- 668,400	48,715,300
1972	1,844,900	778,000	1,583,300	- 516,400	49,231,700
1973	2,094,400	846,000	1,600,000	- 351,600	49,583,300
1974	2,322,300	909,000	1,611,400	- 198,100	49,781,400
1975	2,543,700	970,000	1,617,900	- 44,200	49,825,600
1976	2,735,500	1,024,000	1,619,300	92,200	49,733,400
1977	2,866,200	1,078,000	1,616,300	171,900	49,561,500
1978	3,001,300	1,131,000	1,610,800	259,500	49,302,000
1979	3,159,400	1,177,000	1,602,300	380,100	48,921,900
1980	3,256,100	1,221,000	1,590,000	445,100	48,476,800
1981	3,332,900	1,260,000	1,575,500	497,400	47,979,400
1982	3,410,600	1,303,000	1,559,400	548,200	47,431,200
1983	3,468,800	1,337,000	1,541,600	590,200	46,841,000
1984	3,520,700	1,373,000	1,522,300	625,400	46,215,600
1985	3,561,800	1,406,000	1,502,000	653,800	45,561,800
1986	3,606,900	1,442,000	1,480,800	684,100	44,877,700
1987	3,679,200	1,478,000	1,458,500	742,700	44,135,000
1988	3,712,100	1,510,000	1,434,400	767,700	43,367,300
1989	3,784,500	1,543,000	1,409,400	832,100	42,535,200
1990	3,784,500	1,543,000	1,382,400	859,100	41,676,100
1991	3,784,500	1,543,000	1,354,500	887,000	40,789,100
1992	3,784,500	1,543,000	1,325,700	915,800	39,873,300
1993	3,784,500	1,543,000	1,295,900	945,600	38,927,700
1994	3,784,500	1,543,000	1,265,200	976,300	37,951,400
1995	3,784,500	1,543,000	1,233,400	1,008,100	36,943,300
1996	3,784,500	1,543,000	1,200,600	1,040,900	35,902,400
1997	3,784,500	1,543,000	1,166,900	1,074,600	34,827,800
1998	3,784,500	1,543,000	1,131,900	1,109,600	33,718,200
1999	3,784,500	1,543,000	1,095,800	1,145,700	32,572,500
2000	3,784,500	1,543,000	1,058,600	1,182,900	31,389,600
2001	3,784,500	1,543,000	1,020,200	1,221,300	30,168,300
2002	3,784,500	1,543,000	980,500	1,261,000	28,907,300
2003	3,784,500	1,543,000	939,500	1,302,000	27,605,300
2004	3,784,500	1,543,000	897,100	1,344,400	26,260,900
2005	3,784,500	1,543,000	853,500	1,388,000	24,872,900
2006	3,784,500	1,543,000	808,400	1,433,100	23,439,800
2007	3,784,500	1,543,000	761,800	1,479,700	21,960,100
2008	3,784,500	1,543,000	713,700	1,527,800	20,432,300
2009	3,784,500	1,543,000	664,000	1,577,500	18,854,800
2010	3,784,500	1,543,000	612,800	1,628,700	17,226,100
2011	3,784,500	1,543,000	559,900	1,681,600	15,544,500
2012	3,784,500	1,543,000	505,200	1,736,300	13,808,200
2013	3,784,500	1,543,000	448,700	1,792,800	12,015,400
2014	3,784,500	1,543,000	390,500	1,851,000	10,164,400
2015	3,784,500	1,543,000	330,400	1,911,100	8,253,300
2016	3,784,500	1,543,000	268,200	1,973,300	6,280,000
2017	3,784,500	1,543,000	204,100	2,037,400	4,242,600
2018	3,784,500	1,543,000	137,900	2,103,600	2,139,000
2019	3,751,900	1,543,000	69,500	2,139,000	¹ 0
Total	172,359,500	69,432,000	55,708,100	47,219,000	-----

¹ \$400 surplus.

SPOKANE VALLEY PROJECT

WASHINGTON-IDAHO

The Spokane Valley project was initially authorized by the act of September 16, 1959 (73 Stat. 561), with provisions for irrigation of 10,290 acres located along and near the Spokane River in the eastern part of the State of Washington and the western part of the State of Idaho. Resulting from the withdrawal of highly urbanized lands from the project after authorization in 1959, the project plan was revised to fit the needs of the remaining area and the initial authorizing act was amended by the act of September 5, 1962 (76 Stat. 431).

With the project, the existing gravity surface water system was replaced with a closed pipe pressure system supplied by pumping from groundwater. Water is delivered for irrigation, domestic, municipal, and industrial uses. Irrigation service is provided to approximately 7,500 acres of land within the Consolidated Irrigation District. Some 100 acres of the service area lie within the State of Idaho adjacent to the District's boundary. In 1969, the irrigable area for service was 7,443 acres, and the irrigated area 3,980 acres. In that same year, the gross value of crops produced was \$621,133 and the average value per irrigated acre was \$156.06.

The principal project features include 12 deep wells with pumping units and 10 separate pipe distribution systems, each with a 50,000-gallon steel regulating reservoir or tank. The total cost of constructing the project was \$6,106,133. All project costs are reimbursable.

Project construction began in 1964 and was basically completed in 1967. Operation and maintenance of facilities is performed by the Consolidated Irrigation District. Electrical energy for pumping is made available from the Chief Joseph Dam and other interconnected Federal plants and transmitted over Federal facilities to the Bell substation. From that point, distribution to pumping plants is made under a wheeling arrangement with the Washington Water Power Co.

Repayment contract.—The repayment contract with the District, dated August 1, 1963, provided for repayment to the United States of a construction charge obligation of \$4,522,290.

The irrigation cost allocation is repayable without interest and the domestic, municipal, and industrial cost allocation, including interest during construction is repayable with interest, pursuant to the provisions of the act of September 5, 1962. The construction charge obligation will be repaid within a 40-year period. Remaining construction costs above the District's obligation are to be returned from power revenues from the Chief Joseph Dam project. Annual installments are scheduled to increase from \$25,290 in the first year of repayment to \$178,600 during the last 10 years. Provision exists to increase or decrease that portion of the annual installments attributable to irrigation water users in accordance with a formula mutually acceptable to the Secretary and the board of directors of the District. No development period is provided for in the contract.

CONTRACT AND NOTICE

1963, August 1: Contract 14-06-100-2987 with Consolidated Irrigation District for \$4,522,290, to be repaid in 40 annual installments due December 31 of year in which payment accrues.

1968, January 2: Notice to Consolidated Irrigation District announcing completion of construction and that first annual payment of \$25,290 was due December 31, 1969.

Status of repayment contract:

Total value of contracted repayment	\$4,522,290
Total matured charges ¹	1,848
Total matured charges repaid ¹	1,848
Total matured charges unpaid	(

¹ Covers construction charges on 4.3 acres of land required for highway rights-of-way.

Cost and repayment allocation:

Cost:

Irrigation plant cost \$6,060,897

Property transfers	45,236	Repayment contract:	
Subtotal, construction cost	6,106,133	Irrigation water users	2,667,290
Other charges		Domestic, municipal, and industrial	1,413,175
Interest—domestic, M&I	445,175	D, M, & I, assistance to irrigation	441,825
Obligation assumed—BPA facilities	42,768	Subtotal	4,522,290
Total	6,594,076	Power aid to irrigation—Bonneville	
Allocation of costs:		Power Administration	2,029,635
Irrigation	5,180,901	Contributions	5,000
Domestic, municipal, and industrial	1,413,175	Land donations	37,151
Repayment of costs:		Total repayments and other credits	6,594,076

STRAWBERRY VALLEY PROJECT

UTAH

The construction of the Strawberry Valley project near Payson, in Wasatch and Utah Counties, Utah, was authorized by the Secretary of the Interior on December 15, 1905, under the provisions of the Reclamation Act of June 17, 1902 (32 Stat. 388).

The project was developed to furnish water to 42,000 acres of land. Original project features include Strawberry Dam and Reservoir, Indian Creek Dike and Feeder Canal, Strawberry Tunnel, diversion works, powerplant and canal, on Spanish Fork River, Highline Canal, and Mapleton Lateral. The project consists of the Highline division, Spanish Fork division, and the Springville-Mapleton division, with the Strawberry Water Users Association designated as the fiscal agent between the water users and the United States.¹

The total project cost of \$3,502,479, including the electric plant, is allocated to irrigation and is reimbursable. This amount, plus operation and maintenance, and interest and penalties funded, less certain construction revenues and contributions, is repayable under the terms of the repayment contracts with the Strawberry Water Users Association.

The present irrigable area for service is 44,571 acres, with 39,789 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$4,048,383 and \$101.75, respectively.

The Highline Canal is operated and maintained by the Strawberry Highline Canal Co. The Mapleton Lateral is operated and maintained jointly by the Mapleton and Springville Irrigation Districts. The other project features are operated and maintained by the Strawberry Water Users Association.

Repayment contracts.—The original Strawberry Water Users Association repayment contract was signed March 5, 1906. The amendatory contract signed October 9, 1940, provides for repayment of the remaining obligation of \$1,715,458 in 20 to 40 annual installments.

PUBLIC NOTICES AND CONTRACTS

- 1906, March 5: Contract with Strawberry Water Users Association for project construction and repayment of construction costs.
- 1915, October 8 and October 9: Public notice for Lake Shore and Spanish Fork units. Construction charge \$90 for 2 acre-feet, payable in 20 graduated annual installments.
- 1916, May 13: Public notice for Highline unit. Construction charges \$80 per acre, payable in 20 graduated annual installments.
- 1920, April 26: Public notice increasing construction charges for Lake Shore and Spanish Fork units for lands not applied for to \$108 for 2 acre-feet and for the Highline unit to \$100 per acre.
- 1926, September 28: Contract 11r-78 with Strawberry Water Users Association. Association assumes obligation under individual water-right applications. Delinquent operation and maintenance charges and penalties funded with construction.
- 1940, October 9: Contract with Strawberry Water Users Association extending repayment period to 40 years.

Summary of status of repayment:

Total value of contracted repayment	\$3,348,519
Total matured charges	3,310,062
Total matured charges repaid	3,310,062
Total matured charges unpaid	0

Statement of project cost and repayment:

Cost:

Plant, property, and equipment—actual:

Strawberry Dam and Reservoir	\$1,786,512
Highline Canal and lateral	1,011,348
Other irrigation facilities	534,670
Electric plant	91,804
Other physical property	61,086

Subtotal plant, property, and equipment 3,485,420

Corollary construction costs:

Transitional development	9,216
Nonreimbursable expenses	154
Property transfers	7,689

Subtotal corollary costs 17,059

Total cost allocated 3,502,479

¹ See P. 64, Central Utah project.

Other charges:		Rentals and receipts	237,876
O&M deficit	52,981	Repayment contracts matured	3,310,062
Interest and penalties	47,398		
Subtotal other charges	100,379	Subtotal repayments realized	3,564,247
Total	3,602,858	Anticipated future repayment, repayment contracts unmatured	38,457
Repayment and other credits:		Total repayment	3,602,704
Repayment realized:		Other credits, nonreimbursable	154
Power revenues prior to 1926	16,309	Total repayment and other credits	3,602,858

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1916	\$1,731,249	\$20,421		\$20,421	\$19,829		\$19,829	\$19,829
1917	1,788,312	29,024		29,024	27,552		27,552	47,381
1918	2,341,245	38,703		38,703	34,999		34,999	82,380
1919	2,596,600	39,102		39,102	38,286		38,286	120,666
1920	3,044,066	47,339		47,339	45,631	\$3,007	48,638	169,304
1921	3,075,829	88,136		88,136	77,187	3,714	80,901	250,205
1922	3,082,999	93,100		93,100	59,512	3,972	63,484	313,689
1923	3,084,099	123,079	¹ \$2,559	120,520	64,732	17,976	82,708	396,397
1924	3,091,256	136,150	¹ 3,596	132,554	63,426	19,974	83,400	479,797
1925	3,103,417	155,390	1,030	156,420	66,551	10,290	76,841	556,638
1926	3,114,337	177,700	¹ 9,875	167,825	78,551	27,300	105,851	662,489
1927	3,181,503	86,101	¹ 249,224	¹ 163,123	82,473		82,473	744,962
1928	3,162,530	110,156		110,156	96,032	32,972	129,004	873,966
1929	3,208,236	112,427		112,427	101,974	16,664	118,638	992,604
1930	3,212,136	110,038		110,038	99,664		99,664	1,092,268
1931	3,342,029	107,804		107,804	94,805	10,374	105,179	1,197,447
1932	3,342,029	² 105,681		105,681	43,335	12,999	56,334	1,253,781
1933	3,342,542	² 73,799	¹ 80,144	¹ 6,345	67,992	¹ 17,797	50,195	1,303,976
1934	3,348,835	² 23,312	¹ 49,843	¹ 26,531	23,312	¹ 44,037	¹ 20,725	1,283,251
1935	3,348,835	² 90,495		90,495	64,799		64,799	1,348,050
1936	3,349,379	² 23,625	¹ 80,236	¹ 56,611	23,625	¹ 54,540	¹ 30,915	1,317,135
1937	3,349,424	² 68,803		68,803	68,803		68,803	1,385,938
1938	3,349,424	86,457		86,457	86,457		86,457	1,472,395
1939	3,349,424	82,161		82,161	82,161		82,161	1,554,556
1940	3,349,424	79,410		79,410	79,410		79,410	1,633,966
1941	3,349,424	50,843		50,843	50,843		50,843	1,684,809
1942	3,349,424	47,805		47,805	47,805		47,805	1,732,614
1943	3,349,424	46,336		46,336	46,336		46,336	1,778,950
1944	3,349,424	46,626		46,626	46,626		46,626	1,825,576
1945	3,349,424	46,364		46,364	46,364		46,364	1,871,940
1946	3,349,424	50,199		50,199	50,199		50,199	1,922,139
1947	3,349,424	53,903		53,903	53,903		53,903	1,976,042
1948	3,349,424	59,978		59,978	59,978		59,978	2,036,020
1949	3,349,424	61,375		61,375	61,375		61,375	2,097,395
1950	3,349,424	63,837		63,837	63,837		63,837	2,161,232
1951	3,349,424	67,524		67,524	67,524		67,524	2,228,756
1952	3,349,424	71,065		71,065	71,065		71,065	2,299,821
1953	3,349,424	73,381		73,381	73,381		73,381	2,373,202
1954	3,349,424	75,302		75,302	75,302		75,302	2,448,504
1955	3,349,424	75,901		75,901	75,901		75,901	2,524,405
1956	3,349,424	75,269		75,269	75,269		75,269	2,599,674
1957	3,349,424	74,219		74,219	74,219		74,219	2,673,893
1958	3,349,424	70,423		70,423	70,423		70,423	2,744,316
1959	3,349,424	77,732		77,732	77,732		77,732	2,822,048
1960	3,349,424	64,451		64,451	64,451		64,451	2,886,499
1961	3,349,424	88,513		88,513	88,513		88,513	2,975,012
1962	3,349,424	68,647		68,647	68,647		68,647	3,043,659
1963	3,349,424	49,088		49,088	49,088		49,088	3,092,747
1964	3,349,424	49,207		49,207	49,207		49,207	3,141,954
1965	3,349,424	46,635		46,635	46,635		46,635	3,188,589
1966	3,349,424	40,376		40,376	40,376		40,376	3,228,965
1967	3,349,424	30,351		30,351	30,351		30,351	3,259,316
1968	3,348,519	27,189		27,189	27,189		27,189	3,286,505
1969	3,348,519	23,557		23,557	23,557		23,557	3,310,062
Total		3,784,509	-474,447	3,310,062	3,267,194	42,868	3,310,062	

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts. 1927, adjustment under 1926 contract.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$93,031; 1932, \$74,449; 1933, \$70,320; 1934, \$69,178; 1935, \$55,309; 1936, \$9,412.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1916-----	\$5,442	\$5,352
1917-----	15,810	14,500
1918-----	17,834	18,205
1919-----	25,306	24,291
1920-----	33,249	32,292
1921-----	55,660	51,452
1922-----	70,062	52,388
1923-----	53,774	50,860
1924-----	42,087	32,798
1925-----	41,031	25,271
1926-----	41,765	34,616
1927-----	¹ 24,261	30,917
1928-----	¹ 1,086	3,679
1929-----	54	106
1930-----	94	94
1931-----	60	60
Total -----	376,881	376,881

¹ Decrease.

SUN RIVER PROJECT

MONTANA

Construction of the Sun River project was authorized by the Secretary of the Interior on February 26, 1906, in accordance with act of June 17, 1902 (32 Stat. 388), and was started in May 1907.

The project, situated along the Sun River in Montana west of the city of Great Falls, is divided between the Fort Shaw and Greenfields divisions. There are 10,071 irrigable acres in the Fort Shaw division, 8,207 acres of which were irrigated during 1969 with a gross crop value of \$271,047 or \$33.03 per acre. 67,586 acres of the irrigable acreage of 80,867 acres in the Greenfields division were irrigated during that year, with a gross crop value of \$3,307,908 or \$48.94 per acre. Crop value from 1910 to 1969 amounts to \$86,300,047.

The total cost of the project is \$10,454,367. All costs are allocated to irrigation for repayment.

Waters of the Sun River and tributaries are con-

served and regulated by storage in Gibson, Pishkun, and Willow Creek Reservoirs. Principal features are the Gibson Dam and Reservoir, about 70 miles west of Great Falls on the North Fork of the Sun River; Willow Creek Dam and Reservoir, about 15 miles southeast of Gibson Dam, on Willow Creek near its confluence with Sun River; Pishkun Reservoir, about 15 miles northeast of Gibson Dam, an offstream reservoir occupying a natural depression with eight dikes to secure the required capacity; Sun River Diversion Dam which diverts water into Pishkun Canal; Sun River Slope Canal which serves all project land on the north side of the Sun River; and the Fort Shaw Canal which serves the Fort Shaw division on the south side of the Sun River. There are 183 miles of canals, 532 miles of laterals, and 276 miles of drains on the system.

STATEMENT OF PROJECT COST AND REPAYMENT

	Irrigation			
	Total	Fort Sh- divi	fields division	Undeveloped areas and plans
<i>Cost</i>				
Willow Creek Dam and Reservoir -----	\$416,424	\$99,276	\$317,148	-----
Fort Shaw canals, laterals, etc. -----	455,244	455,244	-----	-----
Rehabilitation and betterment -----	53,839	53,839	-----	-----
Gibson Dam and Reservoir -----	2,505,043	-----	2,505,043	-----
Pishkun Dam, reservoir and canal -----	1,890,395	-----	1,890,395	-----
Sun River Diversion Dam -----	274,687	-----	274,687	-----
Greenfields laterals and drains -----	2,635,432	-----	2,635,432	-----
Other Greenfields division facilities -----	2,010,160	-----	2,010,160	-----
Irrigation plant -----	10,241,224	608,359	9,632,865	-----
Corollary construction costs:				
Investigations -----	101,660	-----	-----	\$101,660
Nonreimbursable expenses -----	14,588	8,739	5,849	-----
Deferred maintenance—rehabilitation and betterment -----	84,524	84,524	-----	-----
Property transfers -----	12,371	454	11,917	-----
Subtotal -----	213,143	93,717	17,766	101,660
Total cost -----	10,454,367	702,076	9,650,631	101,660
Other charges:				
O&M deficit -----	223,698	45,450	178,248	-----
Interest and penalties -----	12,048	12,048	-----	-----
Subtotal -----	235,746	57,498	178,248	-----
Total -----	10,690,113	759,574	9,828,879	101,660
<i>Repayment and other credits</i>				
Repayment realized:				
Repayment contracts matured -----	3,467,988	470,567	2,997,421	-----
Revenues from rental of lands -----	25,499	2,215	-----	23,284
Subtotal -----	3,493,487	472,782	2,997,421	23,284
Repayment anticipated:				
Repayment contracts unmatured -----	6,601,960	77,813	6,524,147	-----
Future repayment contracts -----	3,230	3,230	-----	-----
Other revenues -----	78,376	-----	-----	78,376
Subtotal -----	6,683,566	81,043	6,524,147	78,376
Total repayment -----	10,177,053	553,825	9,521,568	101,660
Other credits:				
Other repayments -----	3,710	-----	3,710	-----
Nonreimbursable expenses -----	14,588	8,739	5,849	-----
Provision for chargeoffs -----	297,752	-----	297,752	-----
Repayment reductions authorized -----	197,374	197,374	-----	-----
Subtotal -----	513,424	206,113	307,311	-----
Total repayment and other credits -----	10,690,477	759,938	9,828,879	101,660
Surplus -----	364	364	-----	-----

FORT SHAW DIVISION

The cost of irrigation features for the Fort Shaw division, as of June 30, 1969, is \$702,076 which includes expenditures for rehabilitation and betterment. Chargeoffs made under the act of May 25, 1926, include \$180,001 for 5,238.67 acres of eroded, nonproductive, and flooded lands and \$11,909 for adjustment of losses on other lands. The act of June 8, 1962, charged off \$5,464 as a permanent loss.

Operation and maintenance of this division was assumed by the Fort Shaw Irrigation District on January 1, 1927.

Repayment contracts.—The original Fort Shaw Irrigation District contract was signed on November 10, 1926. The contract provided that the District assume obligations amounting to \$475,840 and that repayment was to be on a crop-production basis, with the annual installment to be 5 percent of average gross acre income for 10 years preceding until the obligation is paid in full. The Commissioner, on January 15, 1954, approved a writeoff of lands under contract in the amount of \$71,068. During the fiscal year 1956, an additional writeoff was approved in the amount of \$3,524 on account of class 5 lands that were reclassified as permanently unproductive. In fiscal year 1957, 207.10 acres of irrigable public lands were sold with an increase in the District's repayment obligation in the amount of \$7,115. On June 30, 1969, the total construction repayment obligation was \$410,306, all of which had been repaid except \$13,496 not yet due. About 88 percent of the acreage is entirely paid up on original construction costs.

Rehabilitation and betterment contracts.—On April 29, 1949, the Fort Shaw Irrigation District signed a contract to repay not to exceed \$20,000 for needed rehabilitation and betterment work, including the construction of an adequate drainage system for about 1,200 acres. On July 11, 1951, the 1949 contract was amended to increase the maximum obligation to \$40,000 and the amended repayment plan provided for semiannual installments of \$600 beginning January 15, 1956. The rehabilitation and betterment work was completed at a cost of \$38,151 and the contracted obligation has been adjusted to that amount with no change in the repayment installments. The District signed rehabilitation and betterment contract 14-06-600-3780, dated May 27, 1959, in the amount of \$100,000. Repayment installments start July 15, 1963, at the rate of \$1 per annum for each acre of irrigable land for which construction charges payable under contract of November 10, 1926 (11r-96) have been fully

paid. The work under this contract has been complete and the contract obligation adjusted to actual costs of \$99,923.

Summary of status of the Fort Shaw division repayment contracts:

Total value of contracted repayment	\$548,38
Total matured charges	470,56
Total matured charges repaid	470,56
Total matured charges unpaid	

PUBLIC NOTICES AND CONTRACTS

- 1908, March 26: Public notice. Construction charge \$30 per acre, payable in 10 equal annual installments.
- 1912, March 2: Public notice. Construction charge increased to \$36, payable in 10 graduated annual installments.
- 1919, April 29: Public notice. Opening public lands to entry with construction charge at \$50 per acre.
- 1920, March 24: Public notice. Opening public lands to entry with construction charge at \$60 per acre.
- 1926, November 10: Contract 11r-96 with Fort Shaw Irrigation District. District assumes obligations under individual water-right applications. Delinquent charges and penalties funded. Repayment to be on a crop-production basis, with the annual installment to be 5 percent of average gross acre income for 10 years preceding.
- 1949, April 29: Supplemental contract obligating the Fort Shaw Irrigation District not to exceed \$20,000 for needed rehabilitation and betterment work, including the construction of an adequate drainage system for an area of about 1,200 acres located near the town of Fort Shaw. Repayment scheduled to begin January 1, 1960, in semi-annual installments of \$500 and continuing until said charges are fully paid.
- 1951, July 11: Amendment to contract 179r-1295 of April 29, 1949, to increase the maximum obligation to \$40,000 and to increase the rate of repayment to semiannual installments of \$600 beginning January 15, 1956. On December 28, 1955, the Irrigation District was advised that the rehabilitation and betterment work had been completed at a total cost of \$38,151.04.
- 1959, May 27: Contract 14-06-600-3780, obligating the Fort Shaw Irrigation District not to exceed \$100,000 for additional maintenance work for the rehabilitation and betterment of certain of the canals, laterals, and other elements of the irrigation system. Repayment installments to begin July 15, 1963, at the rate of \$1 per annum for each acre of irrigable land for which construction charges payable under contract of November 10, 1926 (11r-96), have been fully repaid. The work under this contract has been completed, and the obligation adjusted to actual cost of \$99,702.74.
- 1969, August 20: Contract 14-06-600-10175, 40-year water service contract for furnishing up to 100 acre-feet annually to the Power-Teton County Water and Sewer District. Payment at rate of \$6 per acre-foot for the first 35 acre-feet and \$10 thereafter for a maximum of 65 acre-feet.

CONSTRUCTION REPAYMENT HISTORY—FORT SHAW IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$1,398		\$1,398	\$1,104		\$1,104	\$1,104
1909		15,668		15,668	14,760		14,760	15,864
1910		11,996		11,996	10,522		10,522	26,386
1911		55,425		55,425	9,794		9,794	36,180
1912		23,001		23,001	1,845	\$24,976	26,821	63,001
1913		37,045	¹ \$3,831	33,214	7,876	13,123	20,999	84,000
1914		28,543	¹ 10,295	18,248	999	4,255	5,254	89,254
1915	\$339,666	7,795	¹ 71,646	¹ 63,851	7,079	¹ 3,181	3,898	93,152
1916	357,244	5,724	¹ 417	5,307	4,500	¹ 59	4,441	97,593
1917	380,643			5,378			5,063	102,656
1918	400,428			6,963			6,629	109,285
1919	395,799	36,641		2,582	32,328		2,666	111,951
1920	415,582			10,348			11,003	122,954
1921	424,986			11,370			6,967	129,921
1922	427,698	11,823	¹ 77	11,746	4,608	1,334	5,942	135,863
1923	423,127	12,065	¹ 501	11,564	3,798	1,336	5,134	140,997
1924	409,951	12,732	¹ 6,511	6,221	5,505	2,084	7,589	148,586
1925	422,423	15,680	¹ 1,928	13,752	5,985	1,949	7,934	156,520
1926	416,964	15,144	¹ 129	15,015	4,894	4,646	9,540	166,060
1927	457,263	13,701	¹ 33,691	¹ 19,990	10,153	¹ 4,266	5,887	171,947
1928	462,982	5,570	¹ 2,945	2,625	5,199	265	5,464	177,411
1929	478,030	7,419	¹ 56	7,363	6,866	514	7,380	184,791
1930	478,030	8,913		8,913	8,365	54	8,419	193,210
1931	477,702	7,900		7,900	7,271	879	8,150	201,360
1932	476,051	² 1,906		1,906	1,047	550	1,597	202,957
1933	478,219	² 1,265	2,441	3,706	1,001	3,397	4,398	207,355
1934	475,087	² 1,327		1,327	1,327	413	1,740	209,095
1935	475,839	² 9,815		9,815	9,719		9,719	218,814
1936	475,436	² 1,510		1,510	841	96	937	219,751
1937	475,437	² 4,475		4,475	1,078	17	1,095	220,846
1938	475,437	6,329		6,329	2,844	4,221	7,065	227,911
1939	475,125	6,293		6,293	2,940	3,313	6,253	234,164
1940	472,744	6,223	¹ 1,151	5,072	2,957	2,182	5,139	239,303
1941	475,840	4,001		4,001	3,990	3,209	7,199	246,502
1942	475,840	5,598		5,598	5,580	56	5,636	252,138
1943	475,840	5,239		5,239	5,221	50	5,271	257,409
1944	475,840	5,535		5,535	5,535	18	5,553	262,962
1945	475,840	5,807		5,807	5,807		5,807	268,769
1946	475,840	5,990		5,990	5,990		5,990	274,759
1947	475,840	6,214		6,214	6,214		6,214	280,973
1948	475,840	6,178		6,178	6,178		6,178	287,151
1949	475,840	6,245		6,245	6,245		6,245	293,396
1950	475,840	6,834		6,834	6,834		6,834	300,230
1951	475,840	6,173		6,173	6,173		6,173	306,403
1952	475,840	6,549		6,549	6,549		6,549	312,952
1953	475,840	6,556		6,556	6,556		6,556	319,508
1954	³ 404,772	4,990		4,990	4,990		4,990	324,498
1955	404,772	6,269		6,269	6,269		6,269	330,767
1956	446,462	6,044		6,044	6,044		6,044	336,811
1957	453,577	5,983		5,983	5,983		5,983	342,794
1958	453,577	6,460	9,326	15,786	6,460	9,326	15,786	358,580
1959	553,921	7,221		7,221	7,221		7,221	365,801
1960	553,921	6,189		6,189	6,189		6,189	371,990
1961	553,921	6,005	10,448	16,453	6,005	10,448	16,453	388,443
1962	548,457	5,904		5,904	5,904		5,904	394,347
1963	548,457	5,411		5,411	5,411		5,411	399,758
1964	548,457	12,421		12,421	12,421		12,421	412,179
1965	548,457	11,974		11,974	11,974		11,974	424,153
1966	⁴ 548,380	12,065		12,065	12,065		12,065	436,218
1967	548,380	11,566		11,566	11,566		11,566	447,784
1968	548,380	11,504		11,504	11,504		11,504	459,288
1969	548,380	11,279		11,279	11,279		11,279	470,567
Total		581,530	- 110,963	470,567	385,362	85,205	470,567	

¹ Decreases cover cancellation of water-right applications and funding of delinquent charges. 1915—Reclamation Extension Act Aug. 13, 1914; 1927—adjustment under 1926 contract.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar

years 1931, \$2,621; 1932, \$5,728; 1933, \$5,778; 1934, \$6,042; 1935, \$6,020; 1936, \$2,556.

³ Writeoff of \$97,679, of which \$71,068 applies to lands under contract and \$26,611 applies to lands not under contract.

⁴ Adjustment of R&B contract obligation to actual costs.

**PAYOUT SCHEDULE—FORT SHAW
IRRIGATION DISTRICT**

Fiscal year	Construction	Rehabilitation and betterment	Total
Through 1969 ----	\$396,810	\$73,757	\$470,567
1970 -----	1,588	9,931	11,519
1971 -----	1,563	10,006	11,569
1972 -----	1,402	10,139	11,541
1973 -----	1,358	10,139	11,497
1974 -----	1,202	10,237	11,439
1975 -----	1,171	9,562	10,733
1976 -----	949	1,200	2,149
1977 -----	860	1,200	2,060
1978 -----	796	1,200	1,996
1979 -----	666	703	1,369
1980 -----	600	-----	600
1981 -----	600	-----	600
1982 -----	600	-----	600
1983 -----	141	-----	141
Totals-----	410,306	138,074	548,380

GREENFIELDS DIVISION

The total construction cost of the irrigation features for the Greenfields division is \$9,650,631. The amount of \$297,752, relating to the cost of the abandoned portion of the Greenfields main canal, was determined not to be a part of the reimbursable costs of the project under the act of July 31, 1953.

Operation and maintenance of the division was assumed by the Greenfields Irrigation District on January 1, 1931.

Repayment contract.—The Greenfields Irrigation District contracted on June 22, 1926, to repay the construction cost of the irrigation system for the Greenfields division. The total obligation amounts to \$9,521,568. Repayment is on a crop-production basis, with annual installment at 5 percent of average gross acre income for the 10 preceding years. Repayments commenced in 1937 in accordance with the contract and totaled \$2,997,421 on June 30, 1969. The State High-

way Commission, the Chicago, Milwaukee, and St. Paul Railroad, and others have repaid \$37,273 of the amount on account of irrigable land in rights-of-way.

CONTRACT AND PUBLIC NOTICES

- 1924, January 9: Order. Opening land to entry. Water charges to be announced later.
- 1926, June 22: Contract 11r-537 with Greenfields Irrigation District to repay construction cost of irrigation system for the Greenfields division. Repayment on crop-production basis, annual installments to be 5 percent of average gross acre income for 10 preceding years.
- 1931, May 9: Order. Opening land to entry. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1932, May 27: Order. Opening public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1936, January 10: Order. Opening public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1939, September 21: Public notice. Opening public lands to entry and announcing availability of water for public and private lands. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1940, March 22: Public notice. Opening public lands to entry and announcing availability of water for public and private lands. Water charges to be paid in accordance with contract dated June 22, 1926.
- 1947, February 21: Public notice. Announcing availability of water for public lands and opening of public lands to entry. Water charges to be paid in accordance with contract dated June 22, 1926.

Summary of status of the Greenfields division repayment contracts:

Total value of contracted repayment	\$9,521,568
Total matured charges	2,997,421
Total matured charges repaid	2,997,421
Total matured charges unpaid	0

Payout schedule.—With annual payments averaging \$131,000, the Greenfields Irrigation District will complete the repayment of their obligation in 2019.

CONSTRUCTION REPAYMENT HISTORY—GREENFIELDS IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1937	\$9,594,333	\$54,706		\$54,706	\$50,375		\$50,375	\$50,375
1938	9,593,034	26,100		26,100	26,100	\$4,331	30,431	80,806
1939	9,593,034	27,229		27,229	22,627		22,627	103,433
1940	9,593,034	27,293		27,293	16,486	4,602	21,088	124,521
1941	9,593,034	13,508		13,508	13,508	10,807	24,315	148,836
1942	9,597,449	32,777		32,777	32,777		32,777	181,613
1943	9,597,449	31,133		31,133	31,133		31,133	212,746
1944	9,597,449	35,583		35,583	35,583		35,583	248,329
1945	9,597,449	42,079		42,079	42,079		42,079	290,408
1946	9,597,449	50,984		50,984	50,984		50,984	341,392
1947	9,597,449	61,534		61,534	61,534		61,534	402,926
1948	9,597,449	70,871		70,871	70,871		70,871	473,797
1949	9,597,449	80,452		80,452	80,452		80,452	554,249
1950	9,597,449	93,388		93,388	93,388		93,388	647,637
1951	9,597,449	92,791		92,791	92,791		92,791	740,428
1952	9,597,449	102,971		102,971	101,623		101,623	842,051
1953	¹ 9,555,084	107,846		107,846	107,846	1,348	109,194	951,245
1954	9,555,084	111,862		111,862	111,862		111,862	1,063,107
1955	9,555,084	118,163		118,163	118,163		118,163	1,181,270
1956	9,555,084	118,193		118,193	118,193		118,193	1,299,463
1957	9,521,577	118,467		118,467	118,467		118,467	1,417,930
1958	9,521,577	119,289		119,289	119,289		119,289	1,537,219
1959	9,521,577	117,518		117,518	117,518		117,518	1,654,737
1960	9,521,568	114,156		114,156	114,156		114,156	1,768,893
1961	9,521,568	112,188	² \$52,371	164,559	112,188	² 52,371	164,559	1,933,452
1962	9,521,568	113,368		113,368	113,368		113,368	2,046,820
1963	9,521,568	116,518		116,518	116,518		116,518	2,163,338
1964	9,521,568	130,852		130,852	130,852		130,852	2,294,190
1965	9,521,568	124,088		124,088	124,088		124,088	2,418,278
1966	9,521,568	126,142		126,142	126,142		126,142	2,544,420
1967	9,521,568	125,765	³ 61,676	187,441	125,765	³ 61,676	187,441	2,731,861
1968	9,521,568	125,965		125,965	125,965		125,965	2,857,826
1969	9,521,568	131,595	⁴ 8,000	139,595	131,595	⁴ 8,000	139,595	2,997,421
Total		2,875,374	122,047	2,997,421	2,854,286	143,135	2,997,421	

¹ Obligation adjusted to reimbursable costs as defined under contract provisions.

² To record credits from land sales applied to maturities.

³ Revenues accrued prior to 1927 from rental of farming and grazing lands.

⁴ Credit from sale of power line.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1908-----	\$233	\$184
1909-----	2,900	2,460
1910-----	1,711	1,754
1911-----	8,155	3,977
1912-----	10,326	4,300
1913-----	10,685	7,990
1914-----	6,784	12,905
1915-----	¹ 5,529	1,281
1916-----	8,455	6,767
1917-----	9,359	7,601
1918-----	11,249	10,916
1919-----	17,064	15,374
1920-----	20,960	20,139
1921-----	20,425	13,154
1922-----	26,706	8,561
1923-----	13,432	8,126
1924-----	¹ 4,068	9,634
1925-----	11,567	8,157
1926-----	11,028	9,080
1927-----	¹ 21,230	3,723
1928-----	¹ 2,889	1,165
1929-----	831	906
1930-----	817	635
1931-----	220	220
1932-----	150	182
1933-----	¹ 41	¹ 73
1934-----	¹ 182	0
1935-----	-----	-----
1936-----	-----	-----
1937-----	-----	-----
1938-----	-----	-----
1939-----	-----	-----
1940-----	¹ 31	¹ 31
Total-----	159,087	159,087

¹ Decrease.

THE DALLES PROJECT

OREGON

The Dalles project—Western division was authorized by Congress on September 13, 1960 (74 Stat. 882).

The project is located in Wasco County, in north-central Oregon, and includes a pumping system to lift water from the Columbia River and distribute it to project farms through a system of buried pipe. All project lands are irrigated by sprinkler methods and the system is designed to make water available to these lands under pressures adequate for sprinkler application.

In 1969, the irrigable acreage for service was 5,655 acres and the irrigated area was 5,151 acres. The gross crop value in that same year was \$4,223,064, and the average value per irrigated acre was \$819.85. Fruit orchards predominate on a large part of the project lands and this use is expected to continue.

The principal project features include a main pumping plant located on the Columbia River, a high-head booster pumping plant, discharge line, two equalizing reservoirs, a small relift pumping plant, and a steel pipe distribution system. The total cost of the project is \$6,844,912.

Construction of project facilities started in fiscal year 1962 and was basically completed in fiscal year 1966. The United States operated the project facilities during the construction period and formally transferred the project facilities to The Dalles Irrigation District for operation and maintenance on March 24, 1966.

Because of operating problems associated with the Mill Creek pumping plant during the testing period, the 10-year development period did not commence until January 1, 1968.

Charges to the District during the development period will be for irrigation pumping power. No charges will be made during the first 5 years. Any pumping power costs during the entire development period in excess of the charges collected during the second 5 years will be treated as capital costs of the project.

Allocation of cost and repayment:

Cost:

Irrigation plant	\$6,771,131
Fish and wildlife	26,071
<hr/>	
Subtotal	6,797,202
Property transfers	47,710
<hr/>	
Subtotal, construction cost	6,844,912
Bonneville facilities transferred	116,490
<hr/>	
Total cost allocated	6,961,402
<hr/>	

Allocation:

Reimbursable—irrigation	6,935,331
Nonreimbursable—fish and wildlife	26,071

Repayment:

Repayment contract	2,550,000
Land donations	65,955
Power revenues—Bonneville Power Administration	4,319,376
<hr/>	
Total repayments	6,935,331

Repayment contract.—The repayment contract with The Dalles Irrigation District, dated October 19, 1961, provides for repayment to the United States of the estimated construction cost obligation of \$2,550,000. This obligation shall be repaid in 50 successive equal annual installments. Provision exists for increasing or decreasing the annual installments in accordance with a formula based on annual variations in economic conditions if such an arrangement is mutually agreed to by the District and the Secretary. A development period of 10 years for the project lands has been provided for in the contract.

CONTRACT AND NOTICE

1961, October 19: Contract 14-06-100-2276 with The Dalles Irrigation District provides for repayment of \$2,550,000 in 50 annual installments. The first installment shall be due and payable on December 31 of the first calendar

year following the close of a 10-year development period, or December 31, 1978.

1967, November 3: Announcement of 10-year development period beginning January 1, 1968. Development period charges will begin in the sixth year of the 10-year period (1973).

Summary of status of repayment contract:

Total value of contracted repayment	\$2,550,0
Total matured charges	30,8
Total matured charges repaid	30,8
Total matured charges unpaid	

CONSTRUCTION REPAYMENT HISTORY—WATER USERS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustment	Total	Cumulative total
1966 ¹ -----	\$2,550,000	\$30,816	-----	\$30,816	\$30,816	-----	\$30,816	\$30,8
1967-----	2,550,000	-----	-----	-----	-----	-----	-----	30,8
1968-----	2,550,000	-----	-----	-----	-----	-----	-----	30,8
1969-----	2,550,000	-----	-----	-----	-----	-----	-----	30,8
Total-----	-----	30,816	-----	30,816	30,816	-----	30,816	-----

¹ Payment for 65.5 acres of right-of-way required by BPA for a substation.

TRINIDAD PROJECT

COLORADO

The Trinidad project, now under construction and consisting of the multiple-purpose Trinidad Dam and Reservoir, was authorized for construction by the Corps of Engineers by the Flood Control Act of 1958 (72 Stat. 297), as amended by the act of October 27, 1965 (79 Stat. 1073-1096). Construction and operation and maintenance of the project are to be substantially in accordance with the recommendations of the Army Chief of Engineers in House Document No. 325, 84th Congress. Among the recommendations in House Document 325, on which project authorization was based, is that the Secretary of the Interior shall have the responsibility for negotiating and entering into a repayment contract with the irrigation beneficiaries, pursuant to Reclamation law.

The Trinidad Dam and Reservoir are located on the Purgatoire River about 4 miles upstream from the city of Trinidad in southern Colorado. In addition to providing needed flood control, and substantial recreation and fish and wildlife benefits, the reservoir will furnish urgently needed supplemental water for not to exceed 19,717 acres of an existing irrigation development immediately downstream from the city of Trinidad. The 114,500 acre-foot total planned capacity of the reservoir is allocated as follows: flood control—51,000 acre-feet; irrigation—20,000 acre-feet; permanent fishery pool—4,500 acre-feet; and joint use for irrigation and sediment—39,000 acre-feet.

Repayment arrangements.—On February 10, 1967, the Purgatoire River Water Conservancy District entered into a contract (14-06-700-6279) with the United States (Bureau of Reclamation) for the repayment of project construction cost allocated to irrigation, but not to exceed \$6,435,600. The latter maximum repayment obligation is 29.28 percent of the estimated total project cost of \$21,980,000 at the time of execution of the contract. Other cost allocations made by the Corps of Engineers were as follows: flood control—\$13,190,900 (nonreimbursable) and permanent fishery pool—\$2,353,500 (nonreimbursable).

In accordance with the project authorizing act, the contract provides for repayment by the District of the total project construction cost allocated to irrigation in a period of 70 years, following a 5-year development period. Annual installments are payable on December 31 of each year. Repayment is to be made in accordance with a variable repayment plan which is to be effective commencing with the first year of construction repayment. The variable repayment plan provides for varying the base annual installment, which will be one-seventieth of the irrigation cost allocation. The base annual installment is currently estimated to be \$91,900 (\$6,435,600 divided by 70 years). The variable formula employs a "water supply index factor," which is a measure of the adequacy of the District's water supply in the current year and a "price index factor." The variable plan requires no construction payment in any year in which a 75 percent or less water supply occurs. The contract provides for payment on April 1 by the District each year to the Corps of Engineers of not to exceed 19.82 percent of the annual cost of operation and maintenance of the joint use facilities of Trinidad Reservoir and not to exceed 2.52 percent of the annual replacement cost of the joint use facilities.

Subcontracts.—In order to assure the District sufficient revenue to make the construction payments to the United States, and to assure the success of a project water management plan essential to the hydrologic feasibility of the project, subcontracts have been entered into by the District and each of the 11 mutual ditch companies and the several individual irrigation diverters in the District's service area. Under these subcontracts, the individual company agrees to be bound by the "operating principles" and "operating criteria" in the exercise of its water rights. Further, the company agrees to pay its pro rata share of the District's annual construction payment to the United States, and also to pay its share of operation and maintenance costs.

TRUCKEE STORAGE PROJECT

NEVADA-CALIFORNIA

The construction of the Truckee Storage project was approved by the President on September 21, 1935. Construction for additional storage on the Newlands project was initiated under the provisions of the National Industrial Recovery Act of 1933, but the funds were transferred to the Truckee River Storage project on February 5, 1934.

The project was developed to furnish water to approximately 29,000 acres of land in Washoe County, Nevada. The project features include Boca Dam and Reservoir with a capacity of 41,142 acre-feet. Besides furnishing irrigation water to project lands, Boca Dam is operated under the Truckee River agreement of June 13, 1935, and provides water for power generation by the Sierra Pacific Power Co. and for the Newlands project, Nevada.

The total cost of constructing the Truckee Storage facilities was \$1,093,328. Of this amount, \$1,000,000 is repayable by the irrigators (sec. 3, act of May 29, 1941, ch. 153, 55 Stat. 210) and \$21,603 by Sierra Pacific Power Co.

Operation and maintenance of the project was transferred to the Washoe County Water Conservation District on January 15, 1942.

In 1969, the irrigable area for service was 28,975 acres, with 19,288 irrigated acres. The gross crop value totaled \$1,250,547 and the average value per acre was \$64.84.

Cost allocation and repayment:

Cost:

Multipurpose plant	\$1,092,423
Property transfers	905
Total cost	1,093,328
O&M costs funded	9,926
Total	1,103,254

Allocation:

Reimbursable:

Irrigation	992,186
Power	19,846

Total 1,012,032

Nonreimbursable:

Irrigation (Act of May 29, 1941)	81,296
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Total allocation 1,093,328

Repayment:

Repayment realized to June 30, 1969:

Repayment contracts matured	671,943
Miscellaneous income	355

Total 672,298

Repayment anticipated:

Repayment contracts unmatured	349,660
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Total repayment 1,021,958

CONTRACTS

- 1935, July 1: Agreement between the United States, Washoe County Water Conservation District, Truckee-Carson Irrigation District, Sierra Pacific Power Co., and other users of the waters of the Truckee River, to further conserve the waters of Lake Tahoe and Truckee River by construction of additional storage features which should be so operated as to conform with present decrees and rates of river flow at designated gaging stations and at the same time permit additional benefits to be obtained.
- 1936, December 18: Contract Ilr-952 with Washoe County Water Conservation District covers \$1,000,000 construction cost of Boca Dam and appurtenant works, to be repaid in 40 equal annual installments commencing in 1944.
- 1937, January 15: Contract Ilr-960 between the United States, Washoe County Water Conservation District, and the Sierra Pacific Power Co., whereby Boca Reservoir's capacity was increased 800 acre-feet to provide pondage for the power company.
- 1942, January 13: Supplemental contract Ilr-952 with the Washoe County Water Conservation District. Excess land provisions of the Federal reclamation laws were nullified

on the Truckee Storage project lands as provided by the act of Congress of November 29, 1940 (Public Law No. 883, 76th Cong.).

945, February 6: Amendatory contract Ilr-952 with Washoe County Water Conservation District provided that the District may deposit 50 percent of the incremental value sales in government bonds and pay the United States the amount so collected to apply as advanced construction charges.

949, August 10: Amendatory contract Ilr-952 with Washoe

County Water Conservation District eliminated article 25 since the antispeculation clauses had served their purpose.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,021,603
Total matured charges	671,943
Total matured charges repaid	671,943
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—WASHOE COUNTY WATER CONSERVATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1943	\$1,000,000	\$340		\$340	\$340		\$340	\$340
1944	1,000,000	25,000		25,000	25,000		25,000	25,340
1945	1,000,000	25,000		25,000	25,000		25,000	50,340
1946	1,000,000	25,000		25,000	25,000		25,000	75,340
1947	1,000,000	25,000		25,000	25,000		25,000	100,340
1948	1,000,000	25,000		25,000	25,000		25,000	125,340
1949	1,000,000	25,000		25,000	25,000		25,000	150,340
1950	1,000,000	25,000		25,000	25,000		25,000	175,340
1951	1,000,000	25,000		25,000	25,000		25,000	200,340
1952	1,000,000	25,000		25,000	25,000		25,000	225,340
1953	1,000,000	25,000		25,000	25,000		25,000	250,340
1954	1,000,000	25,000		25,000	25,000		25,000	275,340
1955	1,000,000	25,000		25,000	25,000		25,000	300,340
1956	1,000,000	25,000		25,000	25,000		25,000	325,340
1957	1,000,000	25,000		25,000	25,000		25,000	350,340
1958	1,000,000	25,000		25,000	25,000		25,000	375,340
1959	1,000,000	25,000		25,000	25,000		25,000	400,340
1960	1,000,000	25,000		25,000	25,000		25,000	425,340
1961	1,000,000	25,000		25,000	25,000		25,000	450,340
1962	1,000,000	25,000		25,000	25,000		25,000	475,340
1963	1,000,000	25,000		25,000	25,000		25,000	500,340
1964	1,000,000	25,000		25,000	25,000		25,000	525,340
1965	1,000,000	25,000		25,000	25,000		25,000	550,340
1966	1,000,000	25,000		25,000	25,000		25,000	575,340
1967	1,000,000	25,000		25,000	25,000		25,000	600,340
1968	1,000,000	25,000		25,000	25,000		25,000	625,340
1969	1,000,000	25,000		25,000	25,000		25,000	650,340
Total		650,340		650,340	650,340		650,340	

CONSTRUCTION REPAYMENT HISTORY—SIERRA PACIFIC POWER CO.

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1937	\$20,003	\$20,003		\$20,003	\$20,003		\$20,003	\$20,003
1942	21,603	1,600		1,600	1,600		1,600	21,603
Total		21,603		21,603	21,603		21,603	

TUCUMCARI PROJECT

NEW MEXICO

The Tucumcari project was authorized by act of August 2, 1937 (50 Stat. 557), as amended by act of April 9, 1938 (52 Stat. 211). The finding of feasibility was approved by the President on November 1, 1938.

The project is located in eastern New Mexico in San Miguel and Quay Counties. Project works extend southeast from Conchas Dam to lands of the Arch Hurley Conservancy District, adjacent to and partially surrounding the city of Tucumcari.

The purpose of the project is to provide a full water supply for the irrigation of 41,397 acres of semiarid land. For the 1969 crop year the irrigated acreage was 36,300, total gross crop value was \$2,918,998, and the average crop value per irrigated acre was \$80.41.

Water supply for the project is obtained from Conchas Reservoir, built and operated by the Corps of Engineers, located at the confluence of the Conchas and South Canadian Rivers. The active reservoir capacity for irrigation is 265,600 acre-feet.

The project works consist of a pumping plant for use when the reservoir level is too low for gravity flow, 104 miles of canals, 175 miles of laterals, and 46 miles of drains. The canal system contains approximately 5½ miles of tunnels.

The total estimated construction cost of \$17,091,262 is allocated to irrigation. Repayment contracts with the Arch Hurley Conservancy District provide for repayment of \$7,451,897, including the funded operation and maintenance charges. The authorizing act, as amended, provided that the project could be found financially feasible if the amount to be expended from the Reclamation Fund could be repaid by the District. Pursuant to this authority a contract requiring the repayment of \$5,655,000 was negotiated. Subsequently, the House Appropriations Committee (H.R. 2038, 80th Cong., 2d sess.) concluded that this was a limitation on repayable costs and appropriations from the Reclamation fund were held within the limitation. Costs in

excess of this amount have been financed from the General Fund of the U.S. Treasury without provision for reimbursement. Subsequent costs, including rehabilitation and betterment, are covered by separate repayment contracts.

Statement of cost and repayment:

Amount to be allocated:

Plant, property, and equipment:

Irrigation plant

Conchas canal	\$9,425,743
Hudson canal	1,511,487
Other irrigation features	4,536,856
Rehabilitation and betterment	1,542,632

Subtotal plant, property, and equipment	17,016,718
Corollary construction costs:	

Investigations	9,814
Property transfer	48,446
Irrigation plant sold (loss)	16,284

Subtotal corollary costs	74,544
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Total cost	17,091,262
O&M deficit funded	635,740

Total	17,727,002
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Repayment and other credits:

Repayment realized:

Repayment contracts matured	655,395
Contributions	3,000
Other repayments	14,043
Miscellaneous income	2,456

Anticipated future repayment:

Repayment contracts unmatured	6,796,502
Other income	5,422

Total repayment	7,476,818
Nonreimbursable	10,250,184

Total repayment and other credits	17,727,002
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Repayment contracts.—Under terms of the repayment contract of December 27, 1938, and August 20, 1953, the Arch Hurley Conservancy District is obli-

gated to repay \$5,825,471 in 40 successive equal annual installments of \$145,637 commencing in 1959. An amendatory contract dated September 30, 1958, provided for fixed payments of \$30,000 each in 1959 and 1960 and, beginning in 1961, annual installments are calculated by multiplying a base annual charge of \$145,637 by the product of the national agricultural parity ratio and production factor representing the relationship between gross crop value the preceding year and an expected normal value of \$4,000,000. Repayment in connection with a contract of July 6, 1953, for emergency installation of the pumping plant in the amount of \$76,426 commenced on August 1, 1954, with the first of five equal annual installments of \$15,285 and the final installment paid on August 1, 1958.

The contract, dated March 27, 1961, is for rehabilitation and betterment of the project and expenditures by the United States are limited to \$750,000. Annual payments based on the same variable formula in the 1958 contract and a base annual charge of \$22,728 started August 1966. An amendment to this contract provides for expenditures of an additional \$800,000 for concrete lining. Completion of this program is expected in 1971. Annual payments under the contract as amended will be computed by the same variable formula used in the basic contract with a base annual charge of \$38,728.

Under the repayment contract dated December 27, 1938 (article 31(e)(1) of contract 11r-1118), the United States has accumulated \$212,746 as of December 31, 1958, representing incremental land value payments to the United States land sale grantees. These credits are applied in the inverse order of the due dates in construction through installments coming due thereafter from the owners of these lands. The amount of credit to be applied during each calendar year is covered in a schedule titled "Repayment of Construction Investment Collections Credits to be Applied," approved December 15, 1958.

Payout schedule.—Payout on the contract for the pumping plant was completed in fiscal year 1959. Pay-

out on the amended major contract and on rehabilitation and betterment is scheduled for fiscal year 2002.

CONTRACTS

- 1938, December 27: Contract 11r-1118 with Arch Hurley Conservancy District for \$5,655,000 of the original construction costs appropriated from the Reclamation Fund.
- 1953, July 6: Contract 14-06-500-37 with Arch Hurley Conservancy District for \$76,426, the cost of the emergency installation of a pumping plant at Conchas Dam, and was paid in five equal installments from 1954 to 1958, inclusive.
- 1953, August 20: Contract 14-06-500-39 with Arch Hurley Conservancy District amending contract 11r-1118, to add funded operation and maintenance costs for \$170,470 to the construction repayment obligation; District to start repayment of the construction obligation in 1959 with 40 equal annual installments of \$145,637.
- 1958, September 30: Contract 14-06-500-359 with Arch Hurley Conservancy District, an amendment to contract 11r-1118, to provide for a variable repayment plan. This amendatory contract provided that the 1959 and 1960 payments would be \$30,000 each and the remaining payments would be determined under a variable repayment formula.
- 1961, March 27: Contract 14-06-500-539 with Arch Hurley Conservancy District provides for rehabilitation and betterment work through improvements to the canal, lateral, and drainage systems. The contract obligation for this rehabilitation and betterment work is \$750,000, and is being repaid according to a variable repayment plan. The first installment due August 1, 1966, was in the amount of \$9,091.
- 1965, February 1: Amendment to contract 14-06-500-539 with Arch Hurley Conservancy District in the amount of \$800,000 provides for a continuation of the rehabilitation and betterment program and is primarily being used to line small laterals with concrete. Repayment under the variable repayment plan will be accelerated beginning with the installment due August 1, 1971, when the base charge is increased from \$22,728 to \$38,728.

Summary of status of repayment contracts:

Total value of contracted repayment	\$7,451,897
Total matured charges	655,395
Total matured charges repaid	655,395
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1955-----	\$5,901,897	\$15,285	-----	\$15,285	\$15,285	-----	\$15,285	\$15,285
1956-----	5,901,897	15,285	-----	15,285	15,285	-----	15,285	30,570
1957-----	5,901,897	15,286	-----	15,286	15,286	-----	15,286	45,856
1958-----	5,901,897	15,285	-----	15,285	15,285	-----	15,285	61,141
1959-----	5,901,897	15,285	-----	15,285	15,285	-----	15,285	76,426
1960-----	5,901,897	30,000	-----	30,000	30,000	-----	30,000	106,426
1961-----	¹ 6,651,897	30,000	-----	30,000	30,000	-----	30,000	136,426
1962-----	6,651,897	58,255	-----	58,255	58,255	-----	58,255	194,681
1963-----	6,651,897	58,255	-----	58,255	58,255	-----	58,255	252,936
1964-----	6,651,897	58,677	-----	58,677	58,677	-----	58,677	311,613
1965-----	¹ 7,451,897	58,677	-----	58,677	58,677	-----	58,677	370,290
1966-----	7,451,897	74,254	-----	74,254	74,254	-----	74,254	444,544
1967-----	7,451,897	67,472	-----	67,472	67,472	-----	67,472	512,016
1968-----	7,451,897	70,524	-----	70,524	70,524	-----	70,524	582,540
1969-----	7,451,897	72,855	-----	72,855	72,855	-----	72,855	655,395
Total--	-----	655,395	-----	655,395	655,395	-----	655,395	-----

¹ Increases for rehabilitation and betterment work.

UMATILLA PROJECT

OREGON

The Umatilla project in Umatilla and Morrow Counties in Oregon consists of three divisions. The East and West divisions, which originally comprised all of the Umatilla project, were authorized on December 4, 1905, under provisions of the original Reclamation Project Act to furnish irrigation water to approximately 36,000 acres. Construction began in 1906. Land included in the East division is nearly all in the Hermiston Irrigation District, and land in the West division is all in the West Extension Irrigation District. In 1923, construction of McKay Dam and Reservoir as an additional feature was approved. This dam and reservoir was constructed to store supplemental irrigation water for the South division of the project. The South division

consists of the Westland and Stanfield Irrigation Districts, plus numerous individual water users.

Project features for the East division include the Cold Springs Dam and Reservoir (an offstream reservoir), a feeder canal, and the main canal. A diversion dam in Umatilla River and a main canal 26.7 miles in length are the principal features of the West division. McKay Dam and Reservoir are the only features in the South division with the exception of some rehabilitation work performed in the Stanfield Irrigation District. The total cost of the project is \$5,324,616.

All reimbursable project costs are allocated to irrigation for repayment.

COST AND REPAYMENT ANALYSIS—UMATILLA PROJECT

Item	East division	West division	South division	Total
<i>Cost</i>				
Total plant cost -----	¹ \$2,181,759	\$874,070	\$2,135,525	\$5,191,354
Corollary costs:				
Deferred maintenance -----	10,432		25,000	35,432
Rehab. and betterment -----			97,830	97,830
Total construction cost -----	2,192,191	874,070	2,258,355	5,324,616
Funded charges:				
O&M deficit -----	112,965	71,249		184,214
Interest and penalties -----	20,385	12,584	331	33,300
Total -----	2,325,541	957,903	2,258,686	5,542,130
<i>Repayment</i>				
Repayment contracts -----	¹ 653,149	319,981	710,052	1,683,182
Water rentals ² -----		1,382	1,476,251	1,477,633
Other income -----	50	1,250	66,741	68,041
Contributions -----			1,000	1,000
Subtotal, repayment -----	653,199	322,613	2,254,044	3,229,856
Chargeoffs by Congress -----	1,670,881	637,930		2,308,811
Water users equity -----			4,642	4,642
Total -----	2,324,080	960,543	2,258,686	5,543,309
Surplus or (deficit) -----	(1,461)	2,640		1,179

¹ Includes rehabilitation and betterment, \$15,301.

² Past and future revenues from the Nov. 18, 1949, water service contracts with Stanfield and Westland Irrigation Districts, and others.

EAST DIVISION

The total cost of constructing the East division features was \$2,192,191. Due to the fact that a portion of the area being irrigated contained excessively sandy soils, or was unproductive for other reasons, Congress approved a writeoff of \$863,621 under the Omnibus Adjustment Act of 1926 (44 Stat. 636). By act of June 18, 1954 (68 Stat. 254), Congress approved the current repayment contract in the amount of \$325,071, and also authorized an additional chargeoff in the amount of \$807,260. The Hermiston Irrigation District's total repayment obligation is \$646,887. There is included in this amount \$15,301 for canal rehabilitation work. In addition, there are contracts with three individuals and with the city of Hermiston for repayment of \$6,262.

Operation and maintenance of this division was assumed by the Hermiston Irrigation District in 1926.

In 1969, the irrigable acreage for service and irrigated area of the District were 10,829 acres and 6,481 acres, respectively. For this same year, the gross crop value was \$462,920 and the average value per irrigated acre was \$71.43.

Repayment contracts.—The first contract for construction of the East division was with the Umatilla River Water Users' Association in 1906. On May 31, 1921, a contract was made with the Hermiston Irrigation District, in which the Association was released of its guarantee and the liens and responsibilities were assumed by the District. In 1926, the contract was amended so that annual installments on the construction obligation were 5 percent of the previous 10 years' average gross crop return per acre. Payments under this contract were made for only 1 year and part of another. The present contract, dated July 6, 1954, provides for the construction obligation to be repaid in equal annual installments of \$3,150. For the purpose of determining these installments, the irrigable acreage given in this contract is 3,967 acres. However, the

District, for purposes of assessments and matters of its own internal administration, may determine other lands within the District to be irrigable and deliver water to these lands. Since execution of the 1954 contract, the District has always delivered water to over 6,000 acres annually.

CONTRACTS AND NOTICES

- 1907, December 27: Public notice. Construction charge \$60 per acre, payable in 10 equal annual installments.
- 1912, March 2: Public notice. Construction charge increased to \$70, payable in 10 graduated annual installments.
- 1915 to 1920: Various public notices were issued covering supplemental construction of pipelines at rates ranging from \$7.50 to \$40 per acre. Some payable concurrently with original construction charges and some later.
- 1921, May 31: Contract 11r-57 with Hermiston Irrigation District assumes obligations under individual water-right applications and for operation and maintenance deficit. Additional supplemental construction to be done at estimated cost of \$780,000, payable after original construction has been accrued.
- 1926, June 23: Contract with Hermiston Irrigation District. Repayment on basis of 5 percent average gross crop value of preceding 10 years. Delinquent charges and penalties funded with construction.
- 1954, July 6: Contract 14-06-W-67 with Hermiston Irrigation District. Establishes District obligation at \$325,071, to be repaid in annual installments of \$3,150 each for a period of 103 years beginning in 1953. Installments paid semiannually on December 31 and June 30.
- 1959, October 16: Notice from regional director's office announcing actual rehabilitation cost at \$15,300.77, to be repaid in 15 annual installments of \$1,020.06 each beginning for year 1959. Payments made semiannually on December 31 and June 30.

Summary of status of repayment contracts of East division:

Total value of contracted repayment	\$653,149
Total matured charges	377,798
Total matured charges repaid	377,798
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—EAST DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$23,096		\$23,096	\$300		\$300	\$300
1909		44,194		44,194	1,998		1,998	2,298
1910		71,190		71,190	51,269		51,269	53,567
1911		33,776		33,776	24,337	\$34,838	59,175	112,742
1912		8,735	¹ \$14,996	¹ 6,261	4,896	35,945	40,841	153,583
1913		72,673	50,396	123,069	2,702	19,599	22,301	175,884
1914		70,980	¹ 52,401	18,579	1,730	¹ 20,121	¹ 18,391	157,493
1915	\$902,079	18,233	¹ 138,956	¹ 120,723	9,412	373	9,785	167,278
1916	874,764	15,805	¹ 8,148	7,657	5,863	2,153	8,016	175,294
1917	955,038			15,273			18,030	193,324
1918	999,943			10,200			8,685	202,009
1919	990,777			13,164			18,419	220,428
1920	1,010,626			25,390			25,918	246,346
1921	950,514	280,465		34,476	153,759		19,668	266,014
1922	² 1,967,154			¹ 4,490			1,107	267,121
1923	1,978,214			43,743			40,890	308,011
1924	1,978,214			46,292			11,966	319,977
1925	1,978,214			48,076			6,269	326,246
1926	1,978,214			48,341			2,807	329,053
1927	1,978,214	11,713	¹ 145,989	¹ 134,276	422		422	329,475
1928	1,978,214	22,574		22,574	5,793	11,587	17,380	346,855
1929	³ 1,363,706	20,864	¹ 61,534	¹ 40,670	388	¹ 50,340	¹ 49,952	296,903
1930	1,362,019	20,432		20,432	245	7,369	7,614	304,517
1931	1,362,019	16,838		16,838	199	5,528	5,727	310,244
1932	1,362,019	15,336		15,336	353	200	553	310,797
1933	1,362,019	14,048		14,048	330	130	460	311,257
1934	1,362,019	12,961		12,961	204		204	311,461
1935	1,362,019	11,874		11,874	176	131	307	311,768
1936	1,362,019	11,059		11,059	147	131	278	312,046
1937	1,362,019	10,402		10,402	133	18	151	312,197
1938	1,362,019	10,112	¹ 4,944	5,168	65		65	312,262
1939	1,362,019	9,888	¹ 4,944	4,944	62		62	312,324
1940	1,362,019	9,888		9,888	115		115	312,439
1941	1,362,019	9,616		9,616	88		88	312,527
1942	1,362,019	9,072		9,072	45		45	312,572
1943	1,362,019	9,072		9,072	23		23	312,595
1944	1,362,019	9,616		9,616	25		25	312,620
1945	1,362,019	10,703		10,703	28		28	312,648
1946	1,362,019	11,791		11,791	29		29	312,677
1947	1,362,019	12,849		12,849	24		24	312,701
1948	1,362,019	14,452		14,452	16		16	312,717
1949	1,362,019	16,354		16,354	15	20	35	312,752
1950	1,362,019	17,985		17,985	17		17	312,769
1951	1,362,019	19,344		19,344	8		8	312,777
1952	1,362,019	21,247		21,247				312,777
1953	1,362,019	22,334		22,334				312,777
1954	1,362,019	11,167		11,167				312,777
1955	⁴ 664,361	9,450	¹ 336,932	¹ 327,482	3,150		3,150	315,927
1956	664,361	3,150		3,150	3,150	814	3,964	319,891
1957	664,361	3,150		3,150	3,150	1,233	4,383	324,274
1958	664,361	3,150		3,150	3,150	1,308	4,458	328,732
1959	664,361	3,150		3,150	3,150	1,385	4,535	333,267
1960	⁵ 654,662	4,170		4,170	4,170	1,537	5,707	338,974
1961	⁶ 653,149	4,170	-1,513	2,657	4,170	23	4,193	343,167
1962	653,149	4,170		4,170	4,170		4,170	347,337
1963	653,149	4,170		4,170	4,170		4,170	351,507
1964	653,149	4,170		4,170	4,170		4,170	355,677
1965	653,149	4,170		4,170	4,170		4,170	359,847
1966	653,149	4,170		4,170	4,170		4,170	364,017
1967	653,149	5,441		5,441	5,441		5,441	369,458
1968	653,149	4,170		4,170	4,170		4,170	373,628
1969	653,149	4,170		4,170	4,170		4,170	377,798
Total		1,097,759	-719,961	377,798	323,937	53,861	377,798	

¹ Decreases cover cancellations of water-right applications, funding of delinquent charges, and cancellation of delinquent charges.

² Obligation increased due to provisions of 1921 contract.

³ Obligation reduced due to provisions of 1926 contract.

⁴ Obligation reduced due to provisions of contract dated July 6, 1954, with

Hermiston Irrigation District.

⁵ Obligation reduced to reflect actual cost of rehabilitation work for Hermiston Irrigation District.

⁶ Obligation reduced to reflect reductions for city of Hermiston and George C. Coe.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—EAST DIVISION

Fiscal year	Collections	Accruals
1908	\$3,849	\$50
1909	8,684	3,574
1910	11,797	9,691
1911	5,645	12,586
1912	18,789	15,627
1913	17,947	5,252
1914	8,161	4,989
1915	¹ 1,746	6,328
1916	11,631	11,159
1917	17,549	16,211
1918	17,920	17,535
1919	20,104	20,259
1920	30,138	27,838
1921	35,492	25,828
1922	¹ 467	10,885
1923	16,084	18,045
1924	32,006	28,026
1925	30,634	12,551
1926	30,203	412
1927	¹ 67,374	143
1928	6,213	0
1929	21,753	28,023
1930	57	57
Total	275,069	275,069

¹ Decrease.

SOUTH DIVISION

The South division consists of some 15,000 irrigable acres in the Stanfield and Westland Irrigation Districts or owned by other water users contracting for storage in McKay Reservoir, which cost \$2,258,355.

In addition to having a water rental contract for storage, the Stanfield Irrigation District has a contract for repayment of \$97,830 expended by the United States for rehabilitation of the distribution system for the District.

In 1969, the Stanfield Irrigation District had 6,088 irrigable acres for service and 5,350 acres irrigated. The gross crop value totaled \$723,376 and the average value per irrigated acre was \$135.21. The Westland Irrigation District had 7,147 irrigable acres for service and 5,647 acres irrigated. The gross crop value totaled \$458,129 and the average value per irrigated acre was \$81.13.

Repayment contracts.—On May 3, 1927, the Stanfield Irrigation District contracted for 20½ percent of the storage in McKay Reservoir, payable in 40 graduated annual installments. The Stanfield Irrigation District made payments on the storage contract as due, but in 1948 the annual installment increased from \$4,000 to \$12,000 and it became apparent the District could not meet the higher payment. As a result of an investigation of economic conditions and repayment

ability in the District, an amendatory repayment contract, negotiated under section 7 of the Reclamation Project Act of 1939 (53 Stat. 1187), was made effective on November 18, 1949, following congressional approval. The amendatory contract provided that 30 percent of the irrigation water stored each year in McKay Reservoir would be made available to the District on a water rental basis of 25 cents an acre-foot. Additional water, when available, would also be subject to water rental at the same rate. In addition, the District is to continue repaying its obligation for rehabilitation at the rate provided in earlier contracts.

On April 28, 1931, the Westland Irrigation District contracted for 40 percent of the storage in McKay Reservoir, payable in 40 graduated annual installments. The contract with the Westland Irrigation District was amended to provide for water rental at 25 cents an acre-foot in an amendatory contract dated November 18, 1949. The water rental rate for both Westland and Stanfield Irrigation Districts has been increased several times by increments of 5 cents per acre-foot and currently the rate is 40 cents per acre-foot.

McKay Reservoir water not otherwise contracted for by Stanfield and Westland Irrigation Districts and purchasers of storage space, is rented on an annual basis at the rate of \$1 per acre-foot when water is available.

CONTRACTS

- 1923, September 19: Contract with Stanfield Irrigation District for purchase of 15,000 acre-feet of storage in McKay Reservoir. Not to exceed \$800,000, payable in 20 annual installments.
- 1927, May 3: Contract with Stanfield Irrigation District, for purchase of 20½ percent of storage in McKay Reservoir, payable in 40 graduated annual installments.
- 1931, April 28, Contract Ilr-652, and 1937, May 17: Contracts with Westland Irrigation District for 40 percent of storage in McKay Reservoir, payable in 40 graduated annual installments.
- 1934, February 12: Contract with Stanfield Irrigation District for betterment of drainage and distribution systems. Cost \$97,830, payable in 39 equal annual installments. Payments due December 31.
- 1936, January 11: Contract Ilr-865 with Oregon State Game Commission for 40 acre-feet of water stored in McKay Reservoir. Cost \$1,400, to be repaid in 20 equal annual installments.
- 1949, November 18: Contract Ilr-1549 with Stanfield Irrigation District for 30 percent of water stored in McKay Reservoir, at 25 cents an acre-foot of water used each year. Also to complete repayment on rehabilitation obligation as per 1934 contract. Minimum water charge due December 31.
- 1949, November 18: Contract with Westland Irrigation District

for 30 percent of water stored in McKay Reservoir at 25 cents an acre-foot of water used each year. Minimum water charge due December 31.

1956, May 4: Contract 14-06-100-970 with Oregon State Board of Control for 350 acre-feet of water stored in McKay Reservoir. Cost of \$10,500 was paid in lump sum at time contract was completed.

NOTE.—In addition, there are contracts for McKay Reservoir storage with 52 private individuals and firms, dated May 4, 1956, through September 19, 1960, all having the same due dates, i.e., January 1 each year for operation and maintenance and December 31 each year for construction charges (except those that paid the construction charges in a lump sum). These contracts total \$162,750.

Net revenues for McKay water, after operation and

maintenance expenses of McKay are deducted, will be applied against construction costs. Purchasers of McKay Reservoir space pay actual operation and maintenance expenses.

Summary of status of repayment contracts:

Total value of contracted repayment	¹ \$345,360
Total matured charges	199,692
Total matured charges repaid	199,692
Total matured charges unpaid	0

¹ In 1949, when the Stanfield and Westland Irrigation Districts were placed on a water rental basis, the value of the contract was reduced to the amount that had been paid by each on the repayment contracts that had been in effect prior to 1949.

CONSTRUCTION REPAYMENT HISTORY—SOUTH DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1930-----	\$5,411	\$271	-----	\$271	\$271	-----	\$271	\$271
1931-----	5,411	271	-----	271	271	-----	271	542
1932-----	852,032	6,509	-----	6,509	3,442	-----	3,442	3,984
1933-----	852,255	271	¹ \$2,786	¹ 2,515	271	\$281	552	4,536
1934-----	1,381,116	271	-----	271	271	-----	271	4,807
1935-----	1,386,594	2,078	-----	2,078	2,078	-----	2,078	6,885
1936-----	1,386,256	2,129	-----	2,129	2,129	-----	2,129	9,014
1937-----	1,385,486	2,742	-----	2,742	2,742	-----	2,742	11,756
1938-----	1,385,486	5,400	¹ 1,782	3,618	3,618	-----	3,618	15,374
1939-----	1,385,486	7,438	-----	7,438	3,409	-----	3,409	18,783
1940-----	1,385,486	5,386	¹ 4,029	1,357	5,386	-----	5,386	24,169
1941-----	1,385,486	9,322	-----	9,322	5,293	-----	5,293	29,462
1942-----	1,385,486	9,155	-----	9,155	5,026	-----	5,026	34,488
1943-----	1,385,486	9,462	¹ 8,158	1,304	5,333	-----	5,333	39,821
1944-----	1,385,486	9,137	¹ 1,717	7,420	4,908	2,239	7,147	46,968
1945-----	1,385,486	9,272	381	9,653	5,597	-----	5,597	52,565
1946-----	1,385,486	25,369	¹ 6,724	18,645	6,654	-----	6,654	59,219
1947-----	1,385,486	24,714	¹ 19,096	5,618	6,067	-----	6,067	65,286
1948-----	1,385,486	23,535	273	23,808	4,412	396	4,808	70,094
1949-----	² 147,140	21,713	¹ 39,051	¹ 17,338	2,597	65	2,662	72,756
1950-----	147,140	2,714	¹ 19,000	¹ 16,286	2,714	-----	2,714	75,470
1951-----	147,140	2,714	-----	2,714	2,714	-----	2,714	78,184
1952-----	147,140	2,714	-----	2,714	2,714	-----	2,714	80,898
1953-----	147,140	2,714	-----	2,714	2,714	-----	2,714	83,612
1954-----	147,140	2,714	-----	2,714	2,714	-----	2,714	86,326
1955-----	147,140	2,713	-----	2,713	2,713	-----	2,713	89,039
1956-----	157,640	13,144	-----	13,144	13,144	-----	13,144	102,183
1957-----	157,700	2,704	-----	2,704	2,704	-----	2,704	104,887
1958-----	577,340	5,658	-----	5,658	5,658	-----	5,658	110,545
1959-----	623,210	5,431	-----	5,431	5,431	-----	5,431	115,976
1960-----	630,140	7,366	-----	7,366	7,366	-----	7,366	123,342
1961-----	320,360	7,662	-----	7,662	7,662	-----	7,662	131,004
1962-----	320,360	7,381	-----	7,381	7,381	-----	7,381	138,385
1963-----	320,360	7,382	-----	7,382	7,382	-----	7,382	145,767
1964-----	320,360	7,362	-----	7,362	7,362	-----	7,362	153,129
1965-----	345,360	7,362	-----	7,362	7,362	-----	7,362	160,491
1966-----	345,360	9,861	-----	9,861	9,861	-----	9,861	170,352
1967-----	345,360	9,862	-----	9,862	9,862	-----	9,862	180,214
1968-----	345,360	9,823	-----	9,823	9,823	-----	9,823	190,037
1969-----	345,360	9,655	-----	9,655	9,655	-----	9,655	199,692
Total-----	-----	301,381	- 101,689	199,692	196,711	2,981	199,692	-----

¹ Decrease. Decreases cover amounts deferred under relief acts.

² Stanfield and Westland Irrigation Districts placed on water rental basis; value of contract reduced to amount that had been paid by each on the repayment contracts that had been in effect prior to 1949.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—SOUTH DIVISION

Fiscal year	Accruals	Collections
1927	\$4,040	\$896
1928	3,201	4,624
1929	3,599	4,421
1930	3,464	3,599
1931	3,982	3,464
1932	2,725	1,100
1933	2,700	4,127
1934	3,197	4,677
1935	3,097	3,097
1936	3,273	2,293
1937	3,171	3,460
1938	3,255	3,946
1939	3,414	2,770
1940	3,246	3,890
1941	2,862	2,835
1942	3,736	1,687
1943	2,865	3,458
1944	3,739	5,169
1945	3,570	3,623
1946	4,169	4,169
1947	4,686	4,686
1948	7,403	7,403
1949	5,649	5,649
1950	382	382
1951	44	44
1952	48	48
1953	33	33
1954	33	33
1955	26	26
1956	26	26
1957	90	90
1958	616	616
1959	937	937
1960	1,192	1,192
1961	1,004	1,004
1962		
1963	1,723	1,723
1964	1,004	1,004
1965	343	343
1966	1,655	1,655
1967	553	553
1968	5,277	5,277
1969	2,429	2,429
Total	102,458	102,458

WEST DIVISION

The total cost of constructing the West division was \$874,070. Repayments commenced in 1918, but the West Extension Irrigation District became delinquent in 1931. In 1926, Congress approved a writeoff of \$24,720 due to the unproductive nature of a portion of the land in the West Extension Irrigation District. By act of June 18, 1954 (68 Stat. 254), Congress approved the current repayment contract in the amount of \$233,176 and also authorized an additional chargeoff in the amount of \$613,210.

Operation and maintenance of the system has been by the West Extension Irrigation District since 1926.

The irrigable acreage for service and the irrigated area of the District in 1969 were 6,263 acres and 4,846 acres, respectively. The gross crop value was \$298,215 and the average value per irrigated acre was \$61.54.

Repayment contracts.—Installments on the construction obligation first came due on the West division under individual water-right contracts. The first contract with the West Extension Irrigation District was on April 6, 1920. The District assumed the outstanding obligation of all the individual water-right contracts at that time. On April 27, 1926, the contract was amended to provide for repayment on the crop production basis, with annual installments 5 percent of average gross crop income per acre for preceding 10 years. The District also assumed operation and maintenance of the system under that contract.

The present contract, dated July 6, 1954, establishes the irrigable acreage at 2,853 and provides equal annual construction payments of \$1,427 each. Under this contract the District may, however, determine other district lands to be irrigable and deliver water to these lands. Since 1954, the District has consistently provided service to lands in excess of the irrigable acreage specified in the repayment contract.

CONTRACTS AND NOTICES

- 1916, May 12: Public notice. Construction charge \$92 per acre, payable in 20 graduated annual installments.
- 1917, December 11: Public notice. Construction charge for lands having vested rights. Rates \$14 and \$20 per acre, payable in 10 equal annual installments.
- 1919, May 24: Public notice. Construction charge for lands having vested rights. Rates from \$14 to \$33.10 per acre, payable in 10 equal annual installments.
- 1920, April 6: Contract 11-47 with West Extension Irrigation District. District assumes obligations under individual water-right applications. Sum of \$90,000 to be expended for supplemental construction to be paid in 1938 and 1939.
- 1926, April 27: Contract with West Extension Irrigation District. Annual installments 5 percent of average gross acre income for 10 preceding years. Delinquent charges and penalties funded with construction.
- 1954, July 6: Contract 14-06-W-68 with West Extension Irrigation District. Establishes District obligation at \$233,176, to be repaid in annual installments of \$1,427 each for a period of 163 years beginning in 1955. Construction payments due semiannually on March 1 and September 1.

Summary of status of repayment contracts:

Total value of contracted repayment	\$319,981
Total matured charges	108,212
Total matured charges repaid	108,212
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—WEST DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1918	\$356,289			\$12,529			\$11,607	\$11,607
1919	590,679			8,720			8,094	19,701
1920	545,342			9,267	\$48,738		8,284	27,985
1921	719,582			13,872			415	28,400
1922	719,949			8,513			7,494	35,894
1923	726,860	\$21,231	\$169	21,400	322	\$12,372	12,694	48,588
1924	726,860			29,858			12,844	61,432
1925	726,860	163,193		34,365				61,432
1926	726,860			46,069				61,432
1927	726,860	7,645	¹ 122,904	¹ 115,259				61,432
1928	732,073	13,943		13,943	3,086	7,378	10,464	71,896
1929	732,073	13,358		13,358	91	6,023	6,114	78,010
1930	732,073	12,907		12,907		5,478	5,478	83,488
1931	732,073	12,202		12,202		3,103	3,103	86,591
1932	732,073	11,318		11,318				86,591
1933	732,073	10,596		10,596				86,591
1934	732,073	9,337		9,337				86,591
1935	732,073	8,056		8,056				86,591
1936	732,073	7,340		7,340				86,591
1937	732,073	6,629		6,629				86,591
1938	732,073	3,209		3,209				86,591
1939	732,073	3,102		3,102				86,591
1940	732,073	6,024		6,024				86,591
1941	732,073	5,673		5,673				86,591
1942	732,073	5,342		5,342				86,591
1943	732,073	5,176		5,176				86,591
1944	732,073	5,973		5,973	498		498	87,089
1945	732,073	6,072		6,072				87,089
1946	727,683	6,056		6,056		¹ 283	¹ 283	86,806
1947	727,683	7,340		7,340				86,806
1948	727,683	7,774		7,774				86,806
1949	727,683	8,349		8,349				86,806
1950	727,683	9,214		9,214				86,806
1951	727,683	9,920		9,920				86,806
1952	727,683	10,443		10,443				86,806
1953	727,683	11,110		11,110				86,806
1954	727,683	5,688		5,688				86,806
1955	² 319,981	713	¹ 204,679	¹ 203,966	713		713	87,519
1956	319,981	1,427		1,427	1,427		1,427	88,946
1957	319,981	1,426		1,426	1,426		1,426	90,372
1958	319,981	1,426		1,426	1,426		1,426	91,798
1959	319,981	1,427		1,427	1,427		1,427	93,225
1960	319,981	1,426		1,426	1,426		1,426	94,651
1961	319,981	1,427		1,427	1,427		1,427	96,078
1962	319,981	1,426		1,426	1,426		1,426	97,504
1963	319,981	1,427		1,427	1,427		1,427	98,931
1964	319,981	1,422		1,422	1,422		1,422	100,353
1965	319,981	1,421		1,421	1,421		1,421	101,774
1966	319,981	2,173		2,173	2,173		2,173	103,947
1967	319,981	711		711	711		711	104,658
1968	319,981	2,133		2,133	2,133		2,133	106,791
1969	319,981	1,421		1,421	1,421		1,421	108,212
Total		435,626	-327,414	108,212	74,141	34,071	108,212	

¹ Decreases cover funding of delinquent charges and cancellation of prior delinquent charges.

² Obligation reduced by contract of July 6, 1954, with West Extension Irrigation District.

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—WEST DIVISION

Fiscal year	Accruals	Collections
1918-----	\$4,686	\$2,729
1919-----	8,041	5,753
1920-----	14,370	12,372
1921-----	10,409	4,727
1922-----	7,935	4,063
1923-----	12,843	12,699
1924-----	10,517	10,938
1925-----	10,186	14,906
1926-----	9,558	7,591
1927-----	¹ 7,601	4,631
1928-----	¹ 510	25
1929-----	4	4
Total-----	80,438	80,438

¹ Decrease.

UNCOMPAHGRE PROJECT

COLORADO

The Uncompahgre project was authorized by the Secretary of the Interior on March 14, 1903. The project lands are located in the counties of Montrose and Delta in western Colorado.

The original project was built to supply water to 140,000 acres of land. The project features include a diversion dam on the Gunnison River, Gunnison tunnel with a length of 5.79 miles, South Canal having a length of 11.44 miles, 581 miles of main distribution canals, diversion structures and miscellaneous tunnels, and other structures. Since the project has been in operation, Taylor Park Dam and Reservoir and 216 miles of open drains have been constructed in accordance with approval by the President on November 6, 1935.

The total estimated cost of the Uncompahgre project is \$10,887,093. The entire amount is allocated to irrigation and, with the exception of the congressional charge-off and miscellaneous revenues, is repayable under the terms of the repayment contract with the Uncompahgre Valley Water Users Association. The Omnibus Adjustment Act of May 25, 1926 (44 Stat. 636), empowered the Secretary of the Interior to make an adjustment of water-right charges on lands that were found to be unproductive. Under the authority of this act, \$2,846,860 construction charges were deducted from the total repayment obligation of the water users.

The present irrigable area for service is 76,418 acres, with 65,095 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$9,128,717 and \$140.24, respectively.

The project was operated and maintained by the United States from 1908 to 1932. In 1932, the Uncompahgre Valley Water Users Association took over the operation and maintenance of the project.

Statement of project cost and repayment:

Irrigation plant—actual and estimated:

Taylor Park Dam \$1,404,870

South Canal	5,381,651
Other irrigation facilities	3,017,134
Estimated cost to complete	72,608
Subtotal plant, property, and equipment ...	9,876,263
Corollary costs:	
Nonreimbursable expenses	157,377
Deferred maintenance—rehabilitation and betterment	746,032
Property transfers	107,421
Subtotal corollary costs	1,010,830
Total costs allocated	10,887,093
Other charges:	
O&M deficit	479,538
Interest and penalties	340,231
Other costs	2,650
Subtotal other charges	822,419
Total	11,709,512
Repayment and other credits:	
Repayments realized:	
Repayment contracts matured	2,098,797
Contributions	26,324
Rentals and grazing fees, etc.	25,602
Miscellaneous income	87,798
Total repayments realized	2,238,521
Anticipated future repayment:	
Repayment contracts unmatured	6,549,483
Total repayment	8,788,004
Other credits:	
Nonreimbursable expenses	157,377
Repayment reductions authorized	2,846,860
Subtotal other credits	3,004,237
Total repayment and other credits	11,792,241
Surplus	82,729

Repayment contracts.—The original repayment contract 11r-657 was signed by the Uncompahgre Valley Water Users Association on May 10, 1915. The amendatory contract 11r-1530, signed December 13, 1948,

provides for the full repayment of costs allocated to irrigation, including interest on delinquency, in approximately 99 years—the annual payment of \$60,000 to be paid one-half on May 1 and one-half on August 1 of each year commencing on May 1, 1950.

Rehabilitation and betterment.—A resume of the rehabilitation and betterment work performed on facilities of the Uncompahgre project is presented by contracts listed below, dated June 20, 1960, and March 16, 1966.

PUBLIC NOTICES AND CONTRACTS

- 1915, May 10: Contract IIR-657 with the Uncompahgre Valley Water Users Association. Association agreed to construction of project facilities and assumed cost of obligations.
- 1922, April 12: Public notice fixed 1922 as the year for beginning repayment of the project indebtedness in 20 annual installments.
- 1927, April 8: Contract IIR-657 with Uncompahgre Valley Water Users Association. Association assumes obligations under individual water-right applications. Unpaid construction and operation and maintenance charges to be paid in 10 and 4 equal annual installments, respectively, with 6 percent interest.
- 1931, August 4: Supplemental contract IIR-657, with Uncompahgre Valley Water Users Association. Repayment period extended to 40 years. All delinquent charges, including 1931 installment, to be paid in annual installments of \$85,000 beginning in 1962.
- 1934, February 16: Supplemental contract IIR-657 with Uncompahgre Valley Water Users Association. Rehabilitation of South Canal and other features. Estimated cost \$325,000, payable in 40 equal annual installments.
- 1934, May 31: Supplemental contract IIR-657 with Uncompahgre Valley Water Users Association. Association contracted for construction of Taylor Park Dam. Estimated cost \$2,000,000, payable in 40 graduated annual installments.
- 1936, February 17: Supplemental contract IIR-657 with Uncompahgre Valley Water Users Association for construction of drainage works. Estimated cost, \$500,000, payable in six equal annual installments starting in 1962.
- 1936, August 22: Supplemental contract IIR-657 with Uncompahgre Valley Water Users Association for concreting

Gunnison Tunnel. Estimated cost, \$300,000, payable in 40 annual installments starting in 1940.

- 1940, July 5: Supplemental contract IIR-657 with the Uncompahgre Valley Water Users Association amends the construction costs as outlined in two contracts dated February 17, 1936, and May 31, 1934. The costs shown in the 1936 contract have been increased to \$600,000, while the costs in the 1934 contract have been lowered to \$1,500,000.
- 1948, December 13: Amendatory contract IIR-1530 with the Uncompahgre Valley Water Users Association provides for a new payout schedule of the Association's indebtedness to the United States in accordance with the act of May 6, 1949 (ch. 93, 63 Stat. 62). The adjusted indebtedness of \$5,957,912.95, to be paid in \$60,000 installments each year with one-half payable on May 1 and one-half on August 1 starting on May 1, 1950.
- 1960, June 20: Rehabilitation and betterment contract 14-06-400-1067 between the United States and the Uncompahgre Valley Water Users Association. The obligation of \$750,000 is repayable \$20,000 annually.
- 1965, April 14: Contract 14-06-400-3961, among the United States, Uncompahgre Valley Water Users Association, and Tri-County Water Conservancy District for the purchase, on an interim basis until the Dallas Creek project is constructed, in blocks of 500 acre-feet, of municipal and industrial water at \$7.50 per acre-foot annually. Revenue from such water is to be applied on the Association's total construction obligation and not used to meet annual installments pursuant to other contracts. Annual operation and maintenance charges are to be paid in advance at the same rate as the Association's water users paid the previous year.
- 1966, March 16: Contract 14-06-400-4419, as amended, with the Uncompahgre Valley Water Users Association for rehabilitation and betterment of the Gunnison Tunnel. Total costs not to exceed \$1,000,000 to be repaid by installments of \$13,000 each year during repayment period of the June 20, 1960, rehabilitation and betterment contract, then at \$33,000 per year on the combined R&B contract until obligation is repaid.

Summary of status of repayment contracts:

Total value of repayment contracts	\$8,648,279
Total matured charges	2,098,797
Total matured charges repaid	2,098,797
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1922	\$6,713,585	\$934		\$934	\$934		\$934	\$934
1923	6,713,585	145,327		145,327	42,632		42,632	43,566
1924	6,713,585	118,237		118,237	32,567	\$12,714	45,281	88,847
1925	6,713,585	112,183	¹ \$6,058	106,125	24,174	8,079	32,253	121,100
1926	6,713,585	110,395	¹ 3,694	106,701	29,071	96,839	125,910	247,010
1927	6,713,585	189,206	¹ 46,347	142,859	55,177	35,952	91,129	338,139
1928	6,713,585	91,237	¹ 30,737	60,500	52,499	6,256	58,755	396,894
1929	² 4,998,446	99,651	¹ 194,469	¹ 94,818	4,061	39,739	43,800	440,694
1930	4,997,506	123,547	¹ 1,640	121,907	5,758	42,826	48,584	489,278
1931	4,993,763	³ 120,090	¹ 1,044	119,046	1,361	46	1,407	490,685
1932	4,939,984	(³)	¹ 336,602	¹ 336,602		¹ 469	¹ 469	490,216
1933	4,945,995	³ 90,284	¹ 103	90,181		¹ 103	¹ 103	490,113
1934	5,270,985	³ 90,284		90,284			0	490,113
1935	7,288,114	(³)	¹ 180,568	¹ 180,568			0	490,113
1936	7,785,353	³ 156		156	156		156	490,269
1937	8,085,464	³ 53,553		53,553	8,790		8,790	499,059
1938	8,082,025	³ 53,263		53,263	10,031	19,378	29,409	528,468
1939	8,094,525	³ 98,526		98,526	9,368	10,326	19,694	548,162
1940	8,094,525	³ 123,594	¹ 45,164	78,430	10,752	6,692	17,444	565,606
1941	8,094,525	123,594		123,594	8,936	8,105	17,041	582,647
1942	8,102,679	123,715		123,715	9,128	808	9,936	592,583
1943	⁴ 7,708,747	123,796		123,796	9,233	5,834	15,067	607,650
1944	7,708,747	123,755		123,755	8,346	10,701	19,047	626,697
1945	⁴ 7,554,248	123,796		123,796	9,063	5,757	14,820	641,517
1946	7,552,433	123,840	¹ 104	123,736	8,992	3,296	12,288	653,805
1947	7,552,433	124,340		124,340	9,603	1,931	11,534	665,339
1948	7,552,433	123,830		123,830	9,268	2,807	12,075	677,414
1949	7,552,433	123,830		123,830	1,094		1,094	678,508
1950	⁵ 6,774,278	30,000	¹ 1,072,068	¹ 1,042,068	30,000	⁶ 137,857	⁶ 167,857	846,365
1951	6,774,278	60,000		60,000	60,000		60,000	906,365
1952	6,774,278	60,000		60,000	60,000		60,000	966,365
1953	⁷ 6,869,807	60,471		60,471	60,471		60,471	1,026,836
1954	⁷ 6,874,017	60,000		60,000	60,000		60,000	1,086,836
1955	6,874,017	60,000		60,000	60,000		60,000	1,146,836
1956	6,874,017	60,002		60,002	60,002		60,002	1,206,838
1957	6,874,017	60,000		60,000	60,000		60,000	1,266,838
1958	⁷ 6,892,512	60,660		60,660	60,660		60,660	1,327,498
1959	6,892,512	61,521		61,521	61,521		61,521	1,389,019
1960	⁷ 6,900,186	61,255		61,255	61,255		61,255	1,450,274
1961	7,652,248	60,718		60,718	60,718		60,718	1,510,992
1962	7,652,248	60,458		60,458	60,458		60,458	1,571,450
1963	7,652,248	60,568		60,568	60,568		60,568	1,632,018
1964	7,647,714	60,702		60,702	60,702		60,702	1,692,720
1965	7,647,714	71,192		71,192	71,192		71,192	1,763,912
1966	8,648,279	80,013		80,013	80,013		80,013	1,843,925
1967	8,648,279	80,155		80,155	80,155		80,155	1,924,080
1968	8,648,279	80,025		80,025	80,025		80,025	2,004,105
1969	8,648,279	94,692		94,692	94,692		94,692	2,098,797
Total		4,017,395	-1,918,598	2,098,797	1,643,426	455,371	2,098,797	

¹ Decrease. Decreases are due to cancellation of water-right applications, funding of delinquent charges, and deferments under relief acts.

² Reduction of obligation due to provisions of 1927 contract.

³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$95,773; 1932, \$93,196; 1933, \$90,488; 1935, \$90,393; 1936, \$15,036. Construction charges deferred under acts of Aug. 21, 1937, and May 31,

1939; 1937, \$15,164; 1938, \$45,164.

⁴ Reduction in obligations due to adjusting estimated costs to actual costs.

⁵ Charge of class 6 lands, less interest funded and construction deficit.

⁶ Advance payments and water rental credits.

⁷ Increase in obligation due to new stock subscriptions under provisions of Dec. 13, 1948, contract.

VALE PROJECT

OREGON

The Vale project was approved by the President on October 21, 1926. Project works constructed under this authorization furnished water to about 32,000 acres of land. Prior to construction, approximately 28,000 acres now in the project had never been under irrigation. The remainder, or about 4,000 acres, was receiving an inadequate water supply through private efforts.

The act of September 9, 1959 (73 Stat. 478), authorized construction of the Bully Creek Extension of the Vale project, which included Bully Creek Dam and Reservoir, a feeder canal, and modification of a portion of the existing lateral system. The primary purpose of the Bully Creek development was to add a firm irrigation water supply for 2,990 additional acres of land widely scattered throughout the existing 32,000-acre Vale project. In addition, there are 956 acres of class 6 water right land within the project.

In 1969, the irrigable acreage for service was 34,993 acres and the irrigated area was 33,754 acres. The gross crop value in the 1969 crop year was \$2,920,998 and the average value per irrigated acre was \$86.54.

The major works of the project are the Warm Spring storage dam, Agency Valley storage dam, Bully Creek storage dam, Namorf diversion dam, Vale Main Canal and Bully Creek siphon, and the lateral distribution system. The Warm Springs Dam was built by the Warm Springs Irrigation District prior to construction of the Vale project. The United States purchased a half interest in the Warm Springs Dam and Reservoir and installed flashboards on the crest of the dam to increase the storage capacity of the reservoir. In addition to providing additional irrigation water, significant reductions in flood damages on Bully Creek and on Malheur River at and below Vale have resulted from adding Bully Creek storage reservoir on the Malheur River system. The new reservoir is operated in coordination with the existing Warm Springs and Agency Valley Reservoirs on Malheur River.

The project provides irrigation, flood control, fish and wildlife, and recreation benefits.

The water users will receive a credit of \$420,000 towards the irrigation allocation for operating and maintaining the nonreimbursable functions during the 50-year irrigation repayment period.

The Vale Oregon Irrigation District operates and maintains the project. With the exception of the reserved works, the project was turned over to the water users on January 1, 1949. Operation and maintenance of the reserved works was assumed by the water users on January 1, 1955, and facilities constructed under the Bully Creek Extension on January 1, 1965.

CONTRACTS AND PUBLIC NOTICE

- 1926, October 22: Contract IIr-64 with the Vale Oregon Irrigation District provided for the repayment of construction costs not to exceed \$4,500,000, to be repaid in 39 annual installments.
- 1932, March 28: Supplemental contract increased maximum obligation to \$5,100,000.
- 1949, April 11: Amended contract IIr-1552, Vale Oregon Irrigation District provides for repayment of a maximum of \$5,012,000 under normal and percentage plan as modified by parity and extended payout period to approximately 73 years. Maximum repayment will be reduced to actual cost upon determination. Construction charge installments due March 15 and June 30.
- 1954, April 21: Notice to District from Assistant Secretary of the Interior stating actual project costs at \$5,022,288.
- 1961, January 19: Contract 14-06-100-2085 with the Vale Oregon Irrigation District provides for maximum repayment of \$2,000,000. Giving consideration to the \$420,000 credit for operation and maintenance of nonreimbursable functions, the District's obligation is presently \$1,398,000. Construction charge installments due March 15 and June 30.

Summary of status of repayment contracts:

Total value of contracted repayment	\$6,420,288
Total matured charges	1,230,913
Total matured charges repaid	1,230,913
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1947	\$5,003,027	\$32,000		\$32,000	\$32,000		\$32,000	\$32,000
1948	¹ 5,062,783	64,000		64,000	64,000		64,000	96,000
1949	5,012,000	64,000		64,000	64,000		64,000	160,000
1950	5,012,000	32,000		32,000	32,000		32,000	192,000
1951	5,012,000	73,664		73,664	73,664		73,664	265,664
1952	5,012,000	87,898		87,898	87,898		87,898	353,562
1953	5,061,921	64,431		64,431	64,431		64,431	417,993
1954	5,063,068	27,498		27,498	27,498		27,498	445,491
1955	5,022,288	39,917		39,917	39,917		39,917	485,408
1956	5,022,288	21,450		21,450	21,450		21,450	506,858
1957	5,022,288	39,783		39,783	39,783		39,783	546,641
1958	5,022,288	36,691		36,691	36,691		36,691	583,332
1959	5,022,288	32,498		32,498	32,498		32,498	615,830
1960	5,022,288	57,201		57,201	57,201		57,201	673,031
1961	6,722,288	55,440		55,440	55,440		55,440	728,471
1962	6,420,288	39,782		39,782	39,782		39,782	768,253
1963	6,420,288	51,717		51,717	51,717		51,717	819,970
1964	6,420,288	53,962		53,962	53,962		53,962	873,932
1965	6,420,288	46,099		46,099	46,099		46,099	920,031
1966	6,420,288	83,031		83,031	83,031		83,031	1,003,062
1967	6,420,288	96,597		96,597	96,597		96,597	1,099,659
1968	6,420,288	56,161		56,161	56,161		56,161	1,155,820
1969	6,420,288	75,093		75,093	75,093		75,093	1,230,913
Total		1,230,913		1,230,913	1,230,913		1,230,913	

¹ Includes funded operation and maintenance totaling \$59,756.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1934	\$8,500	\$5,697
1935	2,287	8,479
1936	12,363	11,459
1937	15,000	19,025
1938	22,207	19,864
1939	24,058	24,229
1940	25,132	22,693
1941	31,968	41,092
1942	28,232	32,642
1943	35,675	20,242
1944	46,675	64,490
1945	53,445	35,630
1946	51,905	72,205
1947	48,668	29,468
1948	34,593	51,093
1949	29,069	11,469
1950	3,085	4,223
1951	5,891	4,753
1952	4,688	4,688
1953	4,276	4,276
1954	4,996	6,183
1955	2,672	1,485
Total	495,385	495,385

Cost and repayment summary:

	Total
Warm Springs Dam and Reservoir	\$697,661
Agency Valley Dam and Reservoir	1,080,614
Bully Creek Dam and Reservoir	2,736,203
Harper Diversion Dam	101,445
Bully Creek Diversion Dam	83,533
Canal system	2,454,521
Lateral system	476,252
Bully Creek lateral system	554,523
Drainage system	80,247
General plant	14,030
Total	8,279,029
Recreation (Bully Creek)	105,262
Total plant	8,384,291
Property transfer	604
Deferred maintenance—R&B	51,068
Total costs allocated	8,435,963
Operation and maintenance charges	110,267
Total	<u>8,546,230</u>

Repayment and other credits:

Repayment realized:

Repayment contracts matured	1,230,913
Contributions	6,089
Miscellaneous income	37,728

Subtotal repayment realized 1,274,730

Anticipated future repayment:

Repayment contracts unmatured	5,189,375
Future repayment contract reduction	(65,823)

Subtotal anticipated future repayment 5,123,552

Total repayment 6,398,282

Nonreimbursable:

Recreation	105,262
Fish and wildlife	509,170
Flood control	1,113,516
Operation and maintenance credits	420,000

Total repayment and other credits 8,546,230

VENTURA RIVER PROJECT

CALIFORNIA

The Ventura River project, located in western Ventura County in the basin of the Ventura River, California, was authorized by act of March 1, 1956 (70 Stat. 32).

The purpose of the project is to furnish new supplemental domestic and irrigation water to the project service area. The principal project works are Robles Diversion Dam on the Ventura River; Robles-Casitas Canal which is about 5 miles long with a capacity of 500 cubic feet per second leading into Casitas Reservoir; Casitas Reservoir, located on Coyote Creek, of 251,700 acre-feet capacity; approximately 34 miles of project conveyance conduit; five pumping plants whose aggregate capacity is 140 cubic feet per second and six balancing reservoirs with an aggregate capacity of 270 acre-feet.

The total estimated cost of the project is \$32,015,289, including \$100,000 nonreimbursable for minimum recreational facilities in the vicinity of Casitas Reservoir. Prior to construction, \$676,983 was advanced by the local water users. The reimbursable cost is allocated by the repayment contract, 57.33 percent to irrigation and 42.67 percent to municipal and industrial water supply. These project costs are to be repaid in full, including interest on the portion allocated to municipal and industrial water supply at a rate of 2.591 percent per annum. The interest on the municipal and industrial water supply will include interest during construction.

In 1969, the irrigable area for service was 8,171 acres and 3,253 acres irrigated. The gross crop value totaled \$2,618,915 and the average value per acre irrigated was \$805.08.

Cost and repayment allocation:

Cost:

Casitas Dam and Reservoir	\$18,217,380
Robles-Casitas Diversion Canal	1,829,937
Ventura River facilities	4,102,098
Ojai Valley facilities	3,579,253
Rincon facilities	1,919,905

Other multipurpose features	2,214,496
Recreation facilities	105,541
Subtotal, plant, property, and equipment ..	31,968,610
Property transfers	46,679
Total cost	32,015,289
Allocation:	
Reimbursable:	
Irrigation	18,297,035
Municipal and industrial	13,618,254
Total reimbursable	31,915,289
Nonreimbursable:	
Recreation	100,000
Repayment and other credits:	
Repayments:	
Repayment contract matured	526,952
Water users advances	676,983
Subtotal	1,203,935
Anticipated future repayments	30,711,354
Total repayments	31,915,289
Nonreimbursable—recreation	100,000
Total repayment and other credits	32,015,289

Repayment contracts.—A repayment contract 14-06-200-5257 pursuant to sections 9(d) and 9(c) of the 1939 Reclamation Project Act (53 Stat. 1187) and the authorizing legislation was executed on March 7, 1956. This contract with the Ventura River Municipal Water District was amended on November 5, 1957, to increase the reimbursable construction cost to not to exceed \$30,900,000. The repayment contract establishes a specified annual payment for both irrigation and municipal and industrial water.

Annual payments will be adjusted to reflect actual costs and the 2.591 percent interest rate. Estimated repayment includes \$9,885,520 interest on the municipal and industrial allocation.

Under the terms of the repayment contract the project works were to be transferred to the water users for operation immediately upon completion. Such transfer

was accomplished on October 1, 1959. The development period, however, began on October 1, 1962.

CONTRACTS AND NOTICE

1956, March 7: Contract 14-06-200-5257 with Ventura River Municipal Water District for \$27,500,000 for irrigation and municipal and industrial water.

Irrigation (10-year development period):

1.5 percent next 30 years estimated installment	\$274,097
5.5 percent last 10 years estimated installment	1,005,022

Municipal and industrial water:

First 5 years	215,000
6th through 10th year	340,000
11th through 15th year	425,000
16th through 20th year	575,000

21st through 25th year	725,000
26th through 30th year	825,000
31st through 35th year	915,000
36th through 40th year	1,000,000

1957, November 5: Amends contract 14-06-200-5257 to increase the reimbursable construction cost to not to exceed \$30,900,000 and revises payout schedule as required.

1968, December 10: Letter notice to Ventura River Municipal Water District that the final amount to be repaid under contract 14-06-200-5257 was \$31,238,306.08.

Summary of status of repayment contracts:

Total value of contracted repayment	\$31,238,306
Total matured charges	526,952
Total matured charges repaid	526,952
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1961-----	\$30,900,000	\$215,000	-----	\$215,000	\$215,000	-----	\$215,000	\$215,000
1962-----	30,900,000	215,000	-----	215,000	215,000	-----	215,000	430,000
1963-----	30,900,000	96,952	-----	96,952	96,952	-----	96,952	526,952
1964-----	30,900,000	0	-----	0	0	-----	0	526,952
1965-----	30,900,000	0	-----	0	0	-----	0	526,952
1966-----	30,900,000	0	-----	0	0	-----	0	526,952
1967-----	30,900,000	0	-----	0	0	-----	0	526,952
1968-----	31,238,306	0	-----	0	0	-----	0	526,952
1969-----	31,238,306	0	-----	0	0	-----	0	526,952
Total--	-----	526,952	-----	526,952	526,952	-----	526,952	-----

Payout schedule.—The payout schedule is based upon the estimated project costs with interest at 2½ percent. It also shows the District's proposed method of financing its obligations under the contract based upon sales of water for municipal and industrial use at \$50 per acre-foot and for irrigation use at \$25 per acre-foot, with the balance to be recovered from taxation. It is assumed that the revenue from taxation will not require an appreciable increase in the District's present tax rates. These taxes have raised the amounts necessary to make the advance payment used for the preparation of plans and specifications.

The portion of annual cost not covered by water sales revenue will be obtained through ad valorem tax levy on all property in District.

Municipal and industrial allocation is scheduled for repayment in 40 years. Annual payments of principal and interest are closely proportional to estimated rate of buildup in demand for municipal and industrial water with rate of payment increased in 5-year increments.

Irrigation allocation is scheduled for repayment in 40 annual installments without interest, commencing after a 10-year development period. Surplus municipal and industrial revenue (total annual revenue less operation and maintenance costs for municipal and industrial) are applied to irrigation repayment after completion of municipal and industrial repayment. Revenues from irrigation water sales in initial 10-year period are assumed to cover operation and maintenance costs.

PAYOUT SCHEDULE—MUNICIPAL AND INDUSTRIAL WATER

Fiscal year	Total payment, interest and principal	Interest at 2.591 percent	Principal payment	Additions to municipal and industrial costs ¹	Balance to be repaid	M&I revenue credited to irrigation
Through 1961	\$215,000		\$215,000		\$13,367,109	0
1962	215,000		215,000	\$516,073	13,668,182	0
1963	215,000	\$118,048	96,952	10,879	13,582,109	0
1964	215,000	351,912		141,180	13,723,289	0
1965	215,000	355,570		163,946	13,887,235	0
1966	340,000	359,818		35,531	13,922,766	0
1967	340,000	360,739		23,346	13,946,112	0
1968	340,000	361,657		24,021	13,970,133	0
1969	340,000	361,966		21,966	13,992,099	0
1970	340,000	362,535		22,535	14,014,634	0
1971	425,000	363,119		-61,881	13,952,753	0
1972	425,000	361,516		-63,484	13,889,269	0
1973	425,000	359,871		-65,129	13,824,140	0
1974	425,000	358,183		-66,817	13,757,323	0
1975	425,000	356,452		-68,548	13,688,775	0
1976	575,000	354,676	161,986	-58,338	13,468,451	0
1977	575,000	348,968	226,032		13,242,419	0
1978	575,000	343,111	231,889		13,010,530	0
1979	575,000	337,103	237,897		12,772,633	0
1980	575,000	330,939	244,061		12,528,572	0
1981	725,000	324,615	400,385		12,128,187	0
1982	725,000	314,241	410,759		11,717,428	0
1983	725,000	303,599	421,401		11,296,027	0
1984	725,000	292,680	432,320		10,863,707	0
1985	725,000	281,479	443,521		10,420,186	0
1986	825,000	269,987	555,013		9,865,173	0
1987	825,000	255,607	569,393		9,295,780	0
1988	825,000	240,854	584,146		8,711,634	0
1989	825,000	225,718	599,282		8,112,352	0
1990	825,000	210,191	614,809		7,497,543	0
1991	915,000	194,261	720,739		6,776,804	0
1992	915,000	175,587	739,413		6,037,391	0
1993	915,000	156,429	758,571		5,278,820	0
1994	915,000	136,774	778,226		4,500,594	0
1995	915,000	116,610	798,390		3,702,204	0
1996	1,000,000	95,924	904,076		2,798,128	0
1997	1,000,000	72,499	927,501		1,870,627	0
1998	1,000,000	48,468	951,532		919,095	0
1999	942,909	23,814	919,095		0	0
2000	0	0	0		0	0
2001	0	0	0		0	0
2002						\$105,735
2003						696,200
2004						696,200
2005						696,200
2006						696,200
2007						696,200
2008						792,800
2009						792,800
2010						792,800
2011						792,800
2012						792,800
Total	24,042,909	9,885,520	14,157,389			7,550,735

¹ Includes changes in total estimated cost, deferred interest, and liquidation of deferred interest.

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT SCHEDULE—IRRIGATION

Fiscal year	Annual payment of principal			Balance to be repaid
	From irrigation	Aid from municipal and industrial water	Total	
1972				\$18,297,035
1973	\$274,456		\$274,456	18,022,579
1974	274,456		274,456	17,748,123
1975	274,456		274,456	17,473,667
1976	274,456		274,456	17,199,211
1977	274,456		274,456	16,924,755
1978	274,456		274,456	16,650,299
1979	274,456		274,456	16,375,843
1980	274,456		274,456	16,101,387
1981	274,456		274,456	15,826,931
1982	274,456		274,456	15,552,475
1983	274,456		274,456	15,278,019
1984	274,456		274,456	15,003,563
1985	274,456		274,456	14,729,107
1986	274,456		274,456	14,454,651
1987	274,456		274,456	14,180,195
1988	274,456		274,456	13,905,739
1989	274,456		274,456	13,631,283
1990	274,456		274,456	13,356,827
1991	274,456		274,456	13,082,371
1992	274,456		274,456	12,807,915
1993	274,456		274,456	12,533,459
1994	274,456		274,456	12,259,003
1995	274,456		274,456	11,984,547
1996	274,456		274,456	11,710,091
1997	274,456		274,456	11,435,635
1998	274,456		274,456	11,161,179
1999	274,456		274,456	10,886,723
2000	274,456		274,456	10,612,267
2001	274,456		274,456	10,337,811
2002	168,721	\$105,735	274,456	10,063,355
2003	310,136	696,200	1,006,336	9,057,019
2004	310,136	696,200	1,006,336	8,050,683
2005	310,136	696,200	1,006,336	7,044,347
2006	310,136	696,200	1,006,336	6,038,011
2007	310,136	696,200	1,006,336	5,031,675
2008	213,536	792,800	1,006,336	4,025,339
2009	213,536	792,800	1,006,336	3,019,003
2010	213,536	792,800	1,006,336	2,012,667
2011	213,536	792,800	1,006,336	1,006,331
2012	213,531	792,800	1,006,331	0
Total	10,746,300	7,550,735	18,297,035	

VERMEJO PROJECT

NEW MEXICO

The Vermejo project was authorized by act of September 27, 1950 (64 Stat. 1072). In accordance with section 3 of that act, the President approved the project report on June 22, 1951. The original act was amended by act of March 5, 1952 (66 Stat. 13).

Vermejo project is located near Maxwell, N. Mex., in Colfax County. The project provides for the rehabilitation of existing irrigation facilities for 7,379 acres in the Vermejo Conservancy District. Of the 7,379 acres of irrigation service land, 6,294 were irrigated during the 1969 crop year with gross crop value of \$206,364 and an average of \$32.79 per irrigated acre.

Three existing dams and reservoirs were enlarged: Stubblefield, No. 2, and No. 13. The existing Vermejo diversion dam, Vermejo Canal, Eagle Tail Canal, lateral system, and drainage system have been rehabilitated. This construction was completed in fiscal year 1957. The reconstruction of dam and reservoir No. 12, and the construction of subsurface drains are in the plans for the project, but the construction period for these items is indefinite.

The total estimated cost of the project is \$2,825,745, including \$97,863 for bond acquisition.

Statement of cost and repayment:

Cost:	
Reservoir and Dam No. 2	\$252,565
Stubblefield Reservoir and Dam	771,723
Reservoir and Dam No. 13	276,323
Reservoir and Dam No. 12	120,200
Irrigation plant	1,228,420
Bond acquisition	97,863
Subtotal plant, property, and equipment	2,747,094
Property transfers	78,651
Total cost	2,825,745
Repayment and other credits:	
Repayment contracts matured	8,550
Repayment contracts unmatured	2,099,393
Total reimbursable irrigation	2,107,943

Nonreimbursable (64 Stat. 1072):

Irrigation	464,802
Flood control	55,000
Fish and wildlife	198,000
Total repayment and other credits	2,825,745

Repayment contracts.—A contract between the United States and the Vermejo Conservancy District, dated August 7, 1952, as amended by contracts dated August 31, 1954, and November 13, 1962, provides that \$2,107,943 will be paid in variable payments, using \$27.860 as a base charge. Annual installments shall not be more than 175 percent of the base charge and not less than 25 percent of the base charge.

The original development period for 7 years started January 1, 1956, and ended December 31, 1962. A 3-year extension was granted, making the development period extend through December 31, 1965. Construction payments commenced in 1966, for an estimated period of 76 years by a variable repayment formula.

A restitution claim covers the \$27 balance of the irrigation allocation.

CONTRACTS

- 1952, August 7: Contract I78r-458 with Vermejo Conservancy District for \$2,010,080, maximum obligation under authorizing legislation. Payments due semiannually January 1 and July 1.
- 1954, August 31: Amendatory contract I78r-458 with Vermejo Conservancy District for \$97,863 for outstanding bonds, with accrued interest, of the Maxwell Irrigation Co. held by the Reconstruction Finance Corp.
- 1962, November 13: Amendatory contract I78r-458 with Vermejo Conservancy District extends the development period through December 31, 1965.
- 1964, November 18: Amendment No. 3 to contract I78r-458 with Vermejo Conservancy District limits payments for 1966, 1967, and 1968, and revises the variable formula and base charge applicable to payments after 1968.
- 1968, November 27: Amendment No. 4 to contract I78r-458 with Vermejo Conservancy District limits payments for years 1969-1973, inclusive, and increases base annual

REPAYMENT OF RECLAMATION PROJECTS

charge to \$29,600 for computing future payments under the variable formula.

Total value of contracted repayment \$2,107,943
 Total matured charges 8,551
 Total matured charges repaid 8,551
 Total matured charges unpaid 0

Summary of status of repayment contract:

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1966-----	\$2,107,943	\$1,107	-----	\$1,107	\$1,107	-----	\$1,107	\$1,107
1967-----	2,107,943	2,278	-----	2,278	2,278	-----	2,278	3,385
1968-----	2,107,943	2,214	-----	2,214	2,214	-----	2,214	5,599
1969-----	2,107,943	2,952	-----	2,952	2,952	-----	2,952	8,551
Total--	-----	8,551	-----	8,551	8,551	-----	8,551	-----

W. C. AUSTIN PROJECT

OKLAHOMA

The construction of W. C. Austin project in Jackson, Greer, and Kiowa Counties of Oklahoma was authorized by the Rivers and Harbors Act of June 28, 1938 (52 Stat. 1215, 1219).

The project was developed to furnish water to 47,244 acres of land and to furnish water for the city of Altus. Of the 47,228 acres of irrigation service land, 41,265 were irrigated during the 1969 crop year, with gross crop value of \$4,654,234 and an average of \$112.79 per irrigated acre. Project features consist of Altus Dam and Reservoir, with canal, lateral, and drainage systems.

Project costs total \$12,309,007. The Interior Department Appropriation Act for fiscal year 1944 provided that not to exceed \$3,080,000 of the total construction costs of all features shall be reimbursable.

The W. C. Austin project was operated by the Bureau of Reclamation until September 30, 1952, at which time the Lugert-Altus Irrigation District assumed responsibility for the operation and maintenance of the project, with the exception of the storage facilities.

Status of repayment contract:

Total value of contracted repayment	\$3,262,188
Total matured charges	1,551,057
Total matured charges repaid	1,551,057
Total matured charges unpaid	0

Statement of cost and repayment:

Plant, property, and equipment—actual and estimated:

Altus Dam and Reservoir	\$5,081,560
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Multipurpose canals	1,879,665
Irrigation plant	5,135,540
City pipeline	152,028
Subtotal plant, property, and equipment ...	12,248,793
Property transfers	59,840
Irrigation plant sold (loss)	374
Total cost	12,309,007
O&M deficit funded	378,479
Total	12,687,486
Reimbursable:	
Irrigation (repayment contract)	2,208,334
Municipal water	1,080,000
Subtotal	3,288,334
Nonreimbursable:	
Flood control	1,130,000
Irrigation	8,269,152
Subtotal	9,399,152
Total	12,687,486
Repayment and other credits:	
Repayment realized:	
Repayment contracts matured	1,551,057
Contributions	4,676
Other repayments	11,971
Miscellaneous income	8,656
Subtotal repayment realized	1,576,360
Repayment contracts unmatured	1,711,132
Miscellaneous income	842
Total repayment	3,288,334
Nonreimbursable	9,399,152
Total repayment and other credits	12,687,486

REPAYMENT OF RECLAMATION PROJECTS

PAYOUT STUDY

Fiscal year	Irrigation			Municipal water supply		
	Net revenues from irrigation water users	Irrigation cost at end of year	Interest free balance to be repaid	Net revenues from water for municipal use	Investment repayment	
					Municipal water plant ⁶	Balance to be repaid
1948		\$8,974,880	\$2,200,000	\$5,000	\$1,080,000	\$1,075,000
1949		9,762,767	2,200,000	5,000	1,080,000	1,070,000
1950		9,925,343	2,200,000	5,000	1,080,000	1,065,000
1951	\$62,000	9,948,348	¹ 2,120,854	5,000	1,080,000	1,060,000
1952	77,000	9,952,330	2,043,854	5,000	1,080,000	1,055,000
1953	77,000	10,103,434	² 1,966,188	5,000	1,080,000	1,050,000
1954	77,000	³ 10,463,706	1,889,188	5,000	1,080,000	1,045,000
1955	76,513	10,462,893	1,812,675	5,000	1,080,000	1,040,000
1956	42,505	⁴ 10,042,563	1,770,170	39,000	1,080,000	1,001,000
1957	42,505	⁵ 10,036,811	1,727,665	39,000	1,080,000	962,000
1958	42,505	10,036,725	1,685,160	39,000	1,080,000	923,000
1959	42,505	10,036,725	1,642,655	39,000	1,080,000	884,000
1960	42,505	10,036,637	1,600,150	39,000	1,080,000	845,000
1961	42,505	10,035,921	1,557,645	39,000	1,080,000	806,000
1962	42,505	10,037,192	1,515,140	39,000	1,080,000	767,000
1963	42,505	10,476,412	1,472,635	39,000	1,080,000	728,000
1964	42,505	10,476,412	1,430,130	39,000	1,080,000	689,000
1965	42,505	10,476,412	1,387,625	39,000	1,080,000	650,000
1966	42,505	10,476,412	1,345,120	39,000	1,080,000	611,000
1967	42,505	10,476,412	1,302,615	39,000	1,080,000	572,000
1968	42,505	10,476,412	1,260,110	39,000	1,080,000	533,000
1969	42,505	10,476,412	1,217,605	39,000	1,080,000	494,000
Subtotal	964,583			586,000		
1970	50,305	10,476,412	1,167,300	31,200	1,080,000	462,800
1971	50,305	10,476,412	1,116,995	31,200	1,080,000	431,600
1972	50,305	10,476,412	1,066,690	31,200	1,080,000	400,400
1973	50,305	10,476,412	1,016,385	31,200	1,080,000	369,200
1974	50,305	10,476,412	966,080	31,200	1,080,000	338,000
1975	55,505	10,476,412	910,575	26,000	1,080,000	312,000
1976	55,505	10,476,412	855,070	26,000	1,080,000	286,000
1977	55,505	10,476,412	799,565	26,000	1,080,000	260,000
1978	55,505	10,476,412	744,060	26,000	1,080,000	234,000
1979	55,505	10,476,412	688,555	26,000	1,080,000	208,000
1980	55,505	10,476,412	633,050	26,000	1,080,000	182,000
1981	55,505	10,476,412	577,545	26,000	1,080,000	156,000
1982	55,505	10,476,412	522,040	26,000	1,080,000	130,000
1983	55,505	10,476,412	466,535	26,000	1,080,000	104,000
1984	55,505	10,476,412	411,030	26,000	1,080,000	78,000
1985	55,505	10,476,412	355,525	26,000	1,080,000	52,000
1986	55,505	10,476,412	300,020	26,000	1,080,000	26,000
1987	55,505	10,476,412	244,515	26,000	1,080,000	0
1988	81,505	10,476,412	163,010			
1989	81,505	10,476,412	81,505			
1990	81,505	10,476,412	0			
Total	2,182,188			1,080,000		

¹ Includes adjustment decrease of \$17,146 to reflect actual funded operation and maintenance.

² Includes adjustment decrease of \$666 to finally adjust funded operation and maintenance.

³ Includes adjustment increase to record nonproject costs of \$360,070 court claims.

⁴ Includes adjustment decrease to remove nonproject costs of \$360,070 court claims.

⁵ Adjusted to remove funded operation and maintenance charges.

⁶ Allocation of cost to be transferred to plant in service for irrigation and municipal water has not been determined.

Repayment contract.—The repayment contract was signed on January 12, 1942, with the Lugert-Altus Irrigation District for \$3,080,000, to be repaid in 40 equal successive annual installments of \$81,505. This sum includes a contract (11r-1372) in the amount of \$1,080,000 with the city of Altus covering a municipal

water supply and which is underwritten by the Irrigation District. The appropriation act of July 12, 1943 (57 Stat. 451), provided that, of the total construction cost of all features of the project, not to exceed \$3,080,000 shall be reimbursable under the provisions of Reclamation law. The cost of funded operation and

maintenance, in the amount of \$182,188, performed during calendar year 1950, was added to the original repayment contract, bringing the total amount to \$3,262,188.

CONTRACT

1942, January 12: Contract II-1375 with Lugert-Altus Irrigation District for \$3,262,188, including funded operation and maintenance costs and including contract II-1372 for \$1,080,000 with the city of Altus.

CONSTRUCTION REPAYMENT HISTORY LUGERT-ALTUS IRRIGATION DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1951	\$2,200,000	\$62,000		\$62,000	\$62,000		\$62,000	\$62,000
1952	2,182,854	77,000		77,000	77,000		77,000	139,000
1953	2,182,188	77,000		77,000	77,000		77,000	216,000
1954	2,182,188	77,000		77,000	77,000		77,000	293,000
1955	2,182,188	76,513		76,513	76,513		76,513	369,513
1956	2,182,188	42,505		42,505	42,505		42,505	412,018
1957	2,182,188	42,505		42,505	42,505		42,505	454,523
1958	2,182,188	42,505		42,505	42,505		42,505	497,028
1959	2,182,188	42,505		42,505	42,505		42,505	539,533
1960	2,182,188	42,505		42,505	42,505		42,505	582,038
1961	2,182,188	42,505		42,505	42,505		42,505	624,543
1962	2,182,188	42,505		42,505	42,505		42,505	667,048
1963	2,182,188	42,505		42,505	42,505		42,505	709,553
1964	2,182,188	42,505		42,505	42,505		42,505	752,058
1965	2,182,188	42,505		42,505	42,505		42,505	794,563
1966	2,182,188	42,505		42,505	42,505		42,505	837,068
1967	2,182,188	42,505		42,505	42,505		42,505	879,573
1968	2,182,188	42,505		42,505	42,505		42,505	922,078
1969	2,182,188	42,505		42,505	42,505		42,505	964,583
Total		964,583		964,583	964,583		964,583	

CITY OF ALTUS

1948	\$1,080,000	\$5,000		\$5,000	\$5,000		\$5,000	\$5,000
1949	1,080,000	5,000		5,000	5,000		5,000	10,000
1950	1,080,000	5,000		5,000	5,000		5,000	15,000
1951	1,080,000	5,000		5,000	5,000		5,000	20,000
1952	1,080,000	5,000		5,000	5,000		5,000	25,000
1953	1,080,000	5,000		5,000	5,000		5,000	30,000
1954	1,080,000	5,000		5,000	5,000		5,000	35,000
1955	1,080,000	5,000		5,000	5,000		5,000	40,000
1956	1,080,000	39,000		39,000	39,000		39,000	79,000
1957	1,080,000	39,000		39,000	39,000		39,000	118,000
1958	1,080,000	39,000		39,000	39,000		39,000	157,000
1959	1,080,000	39,000		39,000	39,000		39,000	196,000
1960	1,080,000	39,000		39,000	39,000		39,000	235,000
1961	1,080,000	39,000		39,000	39,000		39,000	274,000
1962	1,080,000	39,000		39,000	39,000		39,000	313,000
1963	1,080,000	39,000		39,000	39,000		39,000	352,000
1964	1,080,000	39,000		39,000	39,000		39,000	391,000
1965	1,080,000	39,000		39,000	39,000		39,000	430,000
1966	1,080,000	39,000		39,000	39,000		39,000	469,000
1967	1,080,000	39,000		39,000	39,000		39,000	508,000
1968	1,080,000	39,000		39,000	39,000		39,000	547,000
1969	1,080,000	39,000		39,000	39,000		39,000	586,000
Total		586,000		586,000	586,000		586,000	

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1951-----	\$223,905	\$223,905
1952-----	175,000	175,000
1953-----	0	0
1954-----	2,970	2,970
1955-----	5,960	5,960
1956-----	4,878	4,878
1957-----	6,290	6,290
1958-----	7,037	7,037
1959-----	9,242	9,242
1960-----	6,424	6,424
1961-----	8,062	8,062
1962-----	6,454	6,454
1963-----	8,281	8,281
1964-----	9,362	9,362
1965-----	9,369	9,369
1966-----	7,367	7,367
1967-----	10,210	10,210
1968-----	11,315	11,315
1969-----	9,731	9,731
Total -----	521,857	521,857

WAPINITIA PROJECT

OREGON

The Juniper division of the Wapinitia project, located in northcentral Oregon, was authorized by act of Congress on June 4, 1956 (70 Stat. 244-245). The project provides a supplemental water supply for approximately 2,100 acres of irrigable lands on Juniper Flat, a plateau lying between the Deschutes and White Rivers in Wasco County, Oregon. Construction of Wasco Dam and Reservoir assures an adequate water supply for the project lands, whereas they had for many years been dependent upon natural streamflows only.

In 1969, the irrigable area for service was 2,108 acres, and the irrigated area 1,997 acres. The gross value of crops produced on these lands in 1969 was \$151,353 and the average value per irrigated acre was \$75.79.

Construction of Wasco Dam and Reservoir commenced in 1958 and was completed in 1959. The total cost of constructing the project as of June 30, 1969, was \$538,996.

The Bureau of Reclamation built only the storage works associated with the project, and operation of the dam and reservoir was turned over to the Juniper Flat District Improvement Co. on December 9, 1959, following completion of construction.

Repayment contract.—The Juniper Flat District Im-

provement Co. on April 11, 1957, contracted with the Bureau of Reclamation to build the Wasco Dam and Reservoir at a cost not to exceed \$546,130, exclusive of the nonreimbursable cost associated with providing recreational facilities. Repayment is scheduled in 40 equal annual installments of \$13,653.25 each, beginning in 1962 with the last payment due in 2001.

CONTRACT AND NOTICE

- 1957, April 11: Contract 14-06-100-1189 with the Juniper Flat District Improvement Co. covers construction of Wasco Dam and Reservoir at a cost not to exceed \$546,130, exclusive of the nonreimbursable cost associated with constructing recreational facilities. Repayment is to be made in 40 successive annual installments due December 31. At the option of the company, the obligation may be repaid in semiannual installments due December 31 and June 30, and the fixed annual assessment may be replaced by variable payments by application of specified normal and percentage plan.
- 1960, September 28: Estimated cost notice issued by regional director's office. First payment due on December 31, 1961. Final cost notice to be issued at a later date.

Summary of status of repayment contracts:

Total value of contracted repayment	\$546,130
Total matured charges	109,226
Total matured charges repaid	109,226
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1962-----	\$546,130	\$13,653	-----	\$13,653	\$13,653	-----	\$13,653	\$13,653
1963-----	546,130	13,654	-----	13,654	13,654	-----	13,654	27,307
1964-----	546,130	13,653	-----	13,653	13,653	-----	13,653	40,960
1965-----	546,130	13,653	-----	13,653	13,653	-----	13,653	54,613
1966-----	546,130	13,653	-----	13,653	13,653	-----	13,653	68,266
1967-----	546,130	13,653	-----	13,653	13,653	-----	13,653	81,919
1968-----	546,130	13,653	-----	13,653	13,653	-----	13,653	95,572
1969-----	546,130	13,654	-----	13,654	13,654	-----	13,654	109,226
Total--	-----	109,226	-----	109,226	109,226	-----	109,226	-----

Cost and repayment allocations:

Total project cost	\$538,996
Reimbursable cost—irrigation	504,666
Nonreimbursable cost—recreational facilities ...	34,330
Total	538,996

Repayment:

Repayment realized:	
Repayment contracts matured	\$109,226
Miscellaneous income	579
Anticipated future repayment:	
Repayment contracts	394,861
Total repayment	504,666

WASHITA BASIN PROJECT

OKLAHOMA

The Washita Basin project was authorized by act of February 25, 1956 (70 Stat. 28). The Public Works Appropriation Act of September 2, 1958, provided for the nonreimbursability of the water supply furnished the Clinton-Sherman Air Force Base. The project is located in southwestern Oklahoma in Caddo, Grady, Custer and Beckham Counties. The project is divided into the Fort Cobb division and the Foss division.

Facilities of the Fort Cobb division include a dam and reservoir on Pond (Cobb) Creek, an aqueduct system with sufficient capacity to furnish municipal and industrial water amounting to 8,964 acre-feet annually to the various communities in the area, and irrigation facilities to serve 6,000 acres. Facilities of the Foss division include a dam and reservoir on the Washita River, an aqueduct system with sufficient capacity to furnish municipal and industrial water amounting to 11,717 acre-feet annually to the various communities in the area, and irrigation facilities to serve 10,000 acres. The reservoirs will also provide flood control, fish and wildlife, and recreational benefits.

The total estimated project cost is \$39,118,397.

First stage construction, which includes all project features except irrigation facilities, was essentially complete as of June 30, 1963. The Fort Cobb division municipal and industrial water facilities were placed in service December 4, 1961. Completion of the Foss division municipal and industrial water facilities is withheld pending solution of the water treatment problem.

Public Law 90-311, dated May 18, 1968, authorized

feasibility studies in the areas serving the Foss Reservoir Conservancy District to determine alternative water sources and the most practicable and feasible methods of alleviating the problems associated with the poor quality and supply of water stored in Foss Reservoir. Under this law the District is relieved of further payments under its repayment contract and any interest charges until delivery of water is made satisfactory for municipal and industrial use. \$218,365 already repaid was authorized to be refunded to the District.

Construction of irrigation facilities will follow completion of a definite plan report and satisfactory payment arrangements. Anticipated date of use of these facilities for irrigation and M&I purposes remained indefinite at the end of 1969.

The reimbursable cost will exceed the current limitations of \$2,650,000 for Fort Cobb and \$4,640,000 for Foss if specific irrigation facilities are constructed.

After complete repayment of the reimbursable construction obligation of the project allocated to municipal uses, annual payments to the United States by the District shall continue at the same rate until that portion of the construction cost of the reservoir allocated to irrigation is fully repaid. Following complete repayment of the reimbursable joint use construction costs, annual repayment by the District shall continue so long as the costs of irrigation works are unpaid. Reimbursable municipal and industrial water supply costs are to be repaid in a 50-year period and irrigation costs in 55 years after completion of a development period.

COST AND REPAYMENT SUMMARY

Amount to be allocated	Project total	Fort Cobb	Foss
Plant, property, and equipment:			
Multipurpose plant:			
Fort Cobb Dam and Reservoir	\$6,624,883	\$6,624,883	
Foss Dam and Reservoir	14,613,511		\$14,613,511
Municipal and industrial water plant:			
Anadarko aqueduct	2,183,735	2,183,735	
Foss aqueduct	6,233,574		6,233,574
Laterals	249,908	249,908	
Irrigation	8,220,495	3,067,000	5,153,495
Recreation	638,995	319,567	319,428
Fish and wildlife	326,175	9,999	316,176
Subtotal plant, property, and equipment	39,091,276	12,455,092	26,636,184
Property transfers	27,121	14,046	13,075
Total cost	39,118,397	12,469,138	26,649,259
Allocation:			
Reimbursable:			
Irrigation	10,220,579	3,718,949	6,501,630
Municipal and industrial water	11,513,324	3,902,622	7,610,702
Subtotal	21,733,903	7,621,571	14,112,332
Nonreimbursable:			
Flood control	15,417,000	4,147,000	11,270,000
Fish and wildlife	1,135,176	381,000	754,176
Recreation	638,995	319,567	319,428
Air Force water supply	193,323		193,323
Subtotal	17,384,494	4,847,567	12,536,927
Total	39,118,397	12,469,138	26,649,259
Repayment and other credits			
Repayment realized:			
Repayment contracts matured	174,210	140,190	34,020
Contributions	13,220	5,298	7,922
Other repayment	1,305		1,305
Subtotal repayment realized	188,735	145,488	43,247
Anticipated future repayment:			
Repayment contracts unmatured	23,817,290	8,309,810	15,507,480
Total repayment	24,006,025	8,455,298	15,550,727
Nonreimbursable (70 Stat. 28)	17,384,494	4,847,567	12,536,927
Total repayment and other credits	41,390,519	13,302,865	28,087,654
Surplus	2,272,122	833,727	1,438,395

The Fort Cobb Reservoir Master Conservancy District started operating the Fort Cobb division March 15, 1962.

The Foss division will be operated by the Foss Reservoir Master Conservancy District.

CONTRACTS

1957, July 23: Contract 14-06-500-295 with the Fort Cobb Reservoir Master Conservancy District for repayment of a maximum of \$5,800,000 for municipal water facilities and reimbursable costs of the reservoir, plus appropriate interest charges and \$2,650,000 for irrigation works.

1958, February 14: Contract 14-06-500-322 with the Foss Reservoir Master Conservancy District for repayment of a maximum of \$10,901,500 for municipal water facilities and the reimbursable costs of the reservoir, plus appropriate interest charges and \$4,640,000 for irrigation works.

1961, June 19: Amendment No. 1 to contract 14-06-500-322 with the Foss Reservoir Master Conservancy District enables the District to finance water treatment facilities.

1963, December 17: Amendment No. 2 to contract 14-06-500-322 with the Foss Reservoir Master Conservancy District provides for waiving interest under terms of the Water Supply Act of 1958.

1964, April 11: Amendment No. 1 to contract 14-06-500-295 with the Fort Cobb Reservoir Master Conservancy District

tract provides for waiving interest under terms of Water Supply Act of 1958.

1966, September 20: Contract 14-06-500-1361 with Fort Cobb Reservoir Master Conservancy District provides for the District to pay the United States 90 percent of the revenue received from water sales to the Chickasha Municipal Authority of Chickasha, Okla.

1968, July 9: Amendment No. 3 to contract 14-06-500-322 with the Foss Reservoir Master Conservancy District provides for relief to the District pursuant to the act of Congress approved May 18, 1968 (Public Law 90-311).

1969, October 29: Amendment No. 4 to contract 14-06-500-322 with the Foss Reservoir Master Conservancy District defines more specifically the required quantity and quality of water deliveries that must be available for delivery to the District before repayment is resumed.

Summary of status of repayment for Fort Cobb division:

Total value of contracted repayment	\$8,450,000
Total matured charges	140,190
Total matured charges repaid	140,190
Total matured charges unpaid	0

Summary of status of repayment for Foss division:

Total value of contracted repayment	\$15,541,500
Total matured charges	34,020
Total matured charges repaid	34,020
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—FORT COBB DIVISION

Fiscal year	Total obligations of water users	Accruals			Collections				Cumulative (excluding interest)
		Current year	Adjustments	Total	Current year (principal)	Prior year adjustments	Principal	Interest	
1963	\$8,450,000	\$64,000		\$64,000	\$60,057		\$60,057		\$60,057
1964	8,450,000	57,840		57,840	57,840	\$3,943	61,783	\$13,160	121,840
1965	8,450,000	360		360	360		360	77,450	122,200
1966	8,450,000	1,970		1,970	1,970		1,970	77,440	124,170
1967	8,450,000	3,630		3,630	3,630		3,630	77,380	127,800
1968	8,450,000	5,330		5,330	5,330		5,330	77,290	133,130
1969	8,450,000	7,060		7,060	7,060		7,060	77,160	140,190
Total		140,190		140,190	136,247	3,943	140,190	399,880	

WASHOE PROJECT

CALIFORNIA-NEVADA

Washoe project was authorized on August 1, 1956, by Public Law 858, 84th Congress, 2d Session (70 Stat. 775). The original authorizing act was amended by Public Law 706, 85th Congress, 2d Session (72 Stat. 705) on August 21, 1958, to provide greater construction cost. This amendment also authorized the construction of Prosser Creek Dam and Reservoir for flood control. The dam was completed in 1962.

The project is located in westcentral Nevada and eastcentral California and is divided into two divisions. Stampede division includes Prosser Creek, Stampede and Marble Bluff Dams and Reservoirs on the Truckee River watershed, and Stillwater Wildlife Area improvement facilities on the Carson River watershed. Watasheamu division is comprised of Watasheamu Dam, Reservoir, and Powerplant, Dressler Diversion Dam, Carson Canal, and the Carson Valley irrigation and drainage system along the Carson River.

The project will supply supplemental water for 43,380 acres. There will also be available 45,800 acre-feet of water annually for municipal and industrial use, and 12,600 acre-feet for the benefit of fish and wildlife. Drainage service will be supplied to 16,760 acres of the irrigated land.

The estimated total cost of Washoe project is \$61,289,000, of which \$35,420,000 is reimbursable and \$25,869,000 is nonreimbursable.

Prosser Creek Dam, the initial feature of the project, was completed in 1962. The dam is an earthfill structure 163 feet high which has a crest length of 1,830 feet. The reservoir capacity is 29,900 acre-feet. The cost of Prosser Creek Dam is allocated to flood control and is nonreimbursable. It includes \$61,222 for recreational facilities constructed in accordance with section 3 of the authorizing act.

Stampede Dam, located on the Little Truckee River upstream from Boca Dam (Truckee Storage project), is virtually complete. The dam is an earthfill structure

233 feet high with a crest length of 1,520 feet. A saddle dam 70 feet high and 1,400 feet long has also been completed. The reservoir formed by these structures has a capacity of 225,000 acre-feet. Storage was initiated in July 1969.

Supplemental irrigation and drainage service will be provided to lands in Nevada and California, and farmers receiving such service will repay costs in accordance with their determined ability. Costs allocated to power and to municipal and industrial water will be repaid by these functions with interest. It is contemplated that net revenues from the sale of commercial power and from municipal and industrial water in excess of that required for repayment of these functions will be applied to assist in the repayment of project costs allocated to the irrigation and drainage function that is beyond the ability of farmers to repay during the repayment period.

In 1966, the Secretary authorized construction of Stampede Dam because of the urgency of flood control protection for the Reno-Sparks area. Economic analysis showed annual benefits from flood control, recreation, and fish and wildlife will exceed the total costs of Stampede Dam and Reservoir; and it is therefore proposed to operate Stampede Reservoir initially for flood control, recreation, and fish and wildlife benefits. Until water right problems are settled, the minimum pool for recreation and fish and wildlife benefits will be maintained; but Stampede Reservoir will not be operated for municipal and industrial water use or flow regulation; it will be operated for flood control, emergencies, or such other interim operations as might be worked out by the Interior Committee on Operating Criteria and Procedures, Truckee and Carson River Basins. Such interim operation can well benefit Pyramid Lake.

To meet the demand for recreational facilities, campsites have been constructed at Prosser Creek Reservoir

which include parking areas, tables, fireplaces, potable water, and boat launching facilities. Operation and maintenance of these recreational facilities is the responsibility of the Forest Service.

Repayment contract.—A form of repayment contract was executed by the Carson-Truckee Water Conservancy District and the United States on February 19, 1965. The contract provided, however, that it would not be effective until an addition is made covering repayment of the Stampede division. The addition to the contract covering Stampede division apparently will not be approved by the Secretary until water right priorities on the Truckee River have been settled.

Cost and repayment summary:

Cost:	
Plant in service	\$5,143,370
Construction work in progress	13,700,921

Estimated cost to complete	41,763,476
Interest during construction	681,233
Total cost	61,289,000
Allocation of cost:	
Reimbursable:	
Irrigation	19,714,000
Power	7,801,000
Municipal and industrial	7,328,000
Forest Service water	574,000
Total reimbursable	35,420,000
Nonreimbursable:	
Flood control	15,091,000
Fish and wildlife	9,626,000
Recreation	1,152,000
Total nonreimbursable	25,869,000
Repayment:	
Future repayment contracts	2,821,000
Anticipated other income	32,599,000
Total anticipated repayment	35,420,000

WEBER BASIN PROJECT

UTAH

The construction of the Weber Basin project was authorized by act of Congress on August 29, 1949 (63 Stat. 677).

The project was planned to provide irrigation water to 41,990 acres of new land, a supplemental supply to 70,750 acres, and to supplement the municipal and industrial water supply for about 25 cities and communities in Davis and Weber Counties located in north-central Utah. The project features include six storage reservoirs, two hydroelectric powerplants for irrigation pumping, two diversion dams, two aqueducts totaling 28 miles in length, and 65 miles of main canals. About 30 miles of drains will be constructed to reclaim 6,500 acres of waterlogged land and improve 8,200 acres of irrigated land. Recreation facilities have been constructed at five of the project reservoirs.

The total estimated cost of the project is \$105,147,169, with reimbursable costs amounting to an estimated \$86,786,837. Project construction was initiated in December 1952. As of June 30, 1969, the completed portion of the programmed works totals \$94,787,033, with a reimbursable allocation of \$78,000,000.

Construction of additional facilities to complete the project is deferred and will be undertaken in the future upon request of the District and within its contracted obligation to repay construction costs. An amendatory contract will be required to complete the project on the basis of current estimates so as to increase the District's repayment obligation. Reimbursable costs are allocated to irrigation, municipal and industrial water, and to other project purposes. Nonreimbursable costs are allocated to flood control, recreation, fish and wildlife, and highway improvement. During project construction, various project features were transferred to the District from time to time for operation and maintenance. The two hydroelectric powerplants, the Gateway and Wanship, with installed generating capacities of 4,275 kilowatts and 1,425 kilowatts, respectively, were owned and

operated by the Bureau of Reclamation until October 1, 1968, when they were transferred to the Weber Basin Conservancy District. The last of the constructed features was transferred to the District on April 10, 1969, for operation and maintenance.

Statement of cost and repayment:

Cost:

Pineview Dam and Reservoir	\$4,612,088
Wanship Dam and Reservoir	6,389,730
Willard Dam and Reservoir	16,160,388
Lost Creek Dam and Reservoir	4,870,054
East Canyon Dam and Reservoir	4,729,432
Causey Dam and Reservoir	6,506,231
Willard pumping plant	3,046,022
Deep wells	1,828,101
Gateway Canal and Tunnel	8,297,681
Weber Aqueduct	1,559,860
Davis Aqueduct	10,277,292
Willard Canal	7,262,553
Other multipurpose plant	2,434,620
Subtotal, multipurpose plant	77,974,052
Irrigation plant	12,131,992
Gateway Powerplant	1,072,631
Wanship Powerplant	504,047
Other plant—recreation	2,605,432
Estimated cost to complete construction	10,049,787
Construction investigations	310,349
Subtotal plant, property, and equipment ...	104,648,290
Corollary construction costs:	
Transitional development costs	332,627
Property transfers	166,252
Subtotal—corollary costs	498,879
Total cost	105,147,169
Other charges:	
O&M deficit funded	124,831
Subtotal other charges	124,831
Total	105,272,000

Allocation:

Reimbursable:

Irrigation	54,349,837
Municipal and industrial water	25,403,000
Highway construction	664,000
Deferred allocations	6,370,000
Total	86,786,837

Repayment and other credits:

Repayment realized:

Advances by water users	28,364
Repayment contracts matured	3,853,381
Contributions	398,170
Subtotal repayment realized	4,279,915

Anticipated future repayment:

Repayment contracts unmatured	77,777,619
Anticipated contributions	265,830
Subtotal anticipated future repayment	78,043,449

Total repayment 82,323,364

Other credits:

Repayment obligation transferred to Ogden River project	118,260
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Nonreimbursable:

Flood control	6,304,000
Recreation	5,706,000
Fish and wildlife	5,893,000
Highway relocation	582,163
Unallocated Larabee Dam costs	4,345,213

Subtotal—other credits 22,948,636

Total repayment and other credits 105,272,000

Repayment contract.—A repayment contract between the United States and the Weber Basin Water Conservancy District covering the reimbursable project costs with a maximum obligation of \$57,694,000 was executed on December 12, 1952. This contract was amended on June 30, 1961, to increase the maximum obligation to \$81,656,000. The contract provides for a

repayment period of 60 years, with the irrigation water users to have a development period of not to exceed 10 years and an optional variable repayment plan, and the municipal water users will pay 2 percent interest on cost allocated to municipal water. The District will make annual payments based on development unit notices issued at least a year prior to the date when water will first be delivered. Seven development unit notices have been issued the District. The seventh was issued December 24, 1968. The seven development unit notices make available to the District 100,414 acre-feet of project water for irrigation and 50,000 acre-feet of project water for M&I uses. Reimbursable costs apportioned by these seven development notices total \$78,000,000.

The present irrigable area for service is 31,579 acres, with 18,303 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$1,827,545 and \$99.85, respectively.

CONTRACTS

1952, December 12: Contract 14-06-400-33 with the Weber Basin Water Conservancy District. The District to repay the reimbursable project costs not to exceed \$57,694,000, with each development unit within the District having a repayment period of 60 years.

1961, June 30: Amendatory contract 14-06-400-1756 between the United States and the Weber Basin Water Conservancy District for construction costs not to exceed \$97,500,000, with the reimbursable project costs not to exceed \$81,656,000 as the District's obligation.

1966, April 15: Amendatory contract 14-06-400-33 provides for a contribution by the District and a reduction of repayment obligation by \$25,000.

Summary of status of repayment contracts:

Total value of repayment contracts	\$81,631,000
Total matured charges	3,853,381
Total matured charges repaid	3,853,381
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligations of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1960-----	\$57,694,000	\$198,873	-----	\$198,873	\$198,873	-----	\$198,873	\$198,873
1961-----	57,694,000	214,025	-----	214,025	214,025	-----	214,025	412,898
1962-----	81,656,000	214,025	-----	214,025	214,025	-----	214,025	626,923
1963-----	81,656,000	338,042	-----	338,042	338,042	-----	338,042	964,965
1964-----	81,656,000	357,020	-----	357,020	357,020	-----	357,020	1,321,985
1965-----	81,656,000	377,301	-----	377,301	377,301	-----	377,301	1,699,286
1966-----	81,656,000	525,952	-----	525,952	525,952	-----	525,952	2,225,238
1967-----	¹ 81,631,000	505,142	-----	505,142	505,142	-----	505,142	2,730,380
1968-----	81,631,000	552,612	-----	552,612	552,612	-----	552,612	3,282,992
1969-----	81,631,000	570,389	-----	570,389	570,389	-----	570,389	3,853,381
Total -----	-----	3,853,381	-----	3,853,381	3,853,381	-----	3,853,381	-----

¹ Amendatory contract of 1966 provided for contribution by the Weber Basin Water Conservancy District and reduction of repayment obligation by \$25,000.

Fiscal year	Irrigation water					Municipal and industrial water							
	Revenues from—		Ad valorem tax applied to irrigation	Other revenues applied to irrigation	Increase in allocation	Unpaid irrigation allocation	Revenues from—		Total	Interest	Principal	Increase in allocation	Unpaid M&I allocation
	Irrigation water users	Ad valorem tax					M&I water users	Ad valorem tax					
1958						\$2,385,775	\$198,873		\$198,873	\$205,541	—\$6,668	\$598,257	\$10,277,040
1959						5,515,565	211,923		211,923	217,639	—5,716		10,881,965
1960	\$2,102					5,513,463	211,923		211,923	217,553	—5,830		10,887,681
1961	2,102					13,649,006	217,923	\$7,374	225,297	222,041	3,256	208,565	11,102,076
1962	25,108	\$95,000	\$87,626			13,536,272	217,923	7,034	239,957	232,923	7,523	521,413	11,620,233
1963	31,108	30,000	85,966			13,419,198	232,923	7,034	265,135	253,110	12,025	1,042,826	12,655,506
1964	66,708	27,788	95,126		\$118,260	13,482,646	262,923	7,374	315,297	284,154	31,143	1,564,239	14,207,720
1965	111,995	102,500	97,626			13,275,525	307,923	7,374	315,297	283,532	31,665		14,176,577
1966	113,285	105,000	100,126			22,534,474	307,923	7,374	315,297	282,896	32,401		14,144,812
1967	133,255	107,500	102,626			22,301,093	307,923	7,374	315,297	282,249	32,408		14,112,411
1968	148,460	110,000	98,514		1,578,400	23,628,407	307,923	7,374	315,297	281,588	155,458		14,079,363
1969	162,211	112,500	100,733	19,450	909,016	24,276,698	423,060	13,986	437,046	297,928	166,339	1,635,843	15,393,409
1970	191,740	115,000	103,233	32,666	21,574,531	45,539,306	450,000	14,267	464,267	307,868	171,399	663,358	15,885,368
1971	219,915	117,500	94,513	45,847		45,183,492	465,000	14,267	479,267	307,868	171,399	663,359	16,372,168
1972	257,209	108,780	97,483	58,991		44,783,923	480,000	14,267	494,267	317,703	176,559	663,359	16,853,703
1973	267,959	111,750	100,433	72,098	2,086,779	44,361,490	495,000	14,267	509,267	327,443	181,824	663,359	17,329,869
1974	278,199	114,700	101,913	85,168		45,997,539	510,000	14,267	524,267	337,074	187,193	663,359	17,800,558
1975	282,259	116,180	105,613	98,108		45,528,199	525,000	14,267	539,267	346,597	192,670	663,359	18,265,661
1976	282,259	119,880	107,843	111,190		45,042,129	540,000	14,267	554,267	356,011	198,256	663,359	18,725,065
1977	282,259	122,110	110,053	124,141		44,540,837	555,000	14,267	569,267	365,343	203,954	663,358	19,178,658
1978	293,334	124,320	113,753	137,051		44,013,309	570,000	14,267	584,267	374,501	209,766	663,359	19,626,323
1979	293,334	128,020	115,973	149,919		43,469,171	585,000	14,267	599,267	383,573	215,694	663,359	20,067,941
1980	293,334	130,240	119,683	162,545		42,909,945	600,000	14,267	614,267	392,526	221,741	663,359	20,503,391
1981	293,334	133,950	121,903	175,527		42,334,183	615,000	14,267	629,267	401,358	227,909	663,358	20,932,549
1982	293,334	136,170	125,603	188,265		41,743,419	630,000	14,267	644,267	410,067	234,200	663,359	21,355,293
1983	293,334	139,870	128,563	200,938		41,136,217	645,000	14,267	659,267	418,652	240,615	663,359	21,771,491
1984	293,334	142,830	132,263	213,605		40,513,362	660,000	14,267	674,267	427,106	247,161	663,359	22,181,014
1985	293,334	146,530	135,225	226,204		39,874,160	675,000	14,267	689,267	435,431	253,836	663,359	22,583,727
1986	293,334	149,490	138,183	238,756		39,219,399	690,000	14,267	704,267	443,621	260,646	663,359	22,979,493
1987	293,334	152,450	142,633	251,258		38,549,136	705,000	14,267	719,267	451,675	267,392	663,358	23,368,174
1988	293,334	156,900	150,033	263,711		37,861,901	720,000	14,267	734,267	459,589	274,678	663,359	23,750,930
1989	293,334	159,850	153,083	276,112		37,159,273	735,000	14,267	749,267	467,364	281,903	663,359	24,133,686
1990	293,334	164,300	156,693	274,259		36,439,794	750,000	14,267	764,267	474,992	289,275	663,359	24,516,442
1991	293,334	167,260	159,993	275,195		35,718,272	750,000	14,267	764,267	469,207	295,060	663,359	24,899,198
1992	293,334	170,960	161,133	273,304		34,993,986	750,000	14,267	764,267	463,306	300,961	663,359	25,281,954
1993	293,334	175,400	164,833	272,330		34,266,215	750,000	14,267	764,267	457,287	306,980	663,359	25,664,710
1994	293,334	179,100	170,013	271,337		33,535,718	750,000	14,267	764,267	451,147	313,120	663,359	26,047,466
1995	293,334	181,280	173,713	270,324		32,806,663	750,000	14,267	764,267	444,885	319,382	663,359	26,430,222
1996	293,334	185,980	178,153	269,291		31,322,885	750,000	14,267	764,267	438,497	325,770	663,359	26,812,978
1997	293,334	192,420	182,603	268,237		30,578,711	750,000	14,267	764,267	431,982	332,283	663,359	27,195,734
1998	293,334	196,870	187,043	267,162		29,831,172	750,000	14,267	764,267	425,336	338,931	663,359	27,578,490
1999	293,334	201,310	192,213	266,065		29,079,560	750,000	14,267	764,267	418,557	345,710	663,359	27,961,246
2000	293,334	206,480	197,403	264,947		28,323,876	750,000	14,267	764,267	411,643	352,624	663,359	28,344,002
2001	293,334	211,670	201,843	263,806		27,564,893	750,000	14,267	764,267	397,397	359,676	663,359	28,726,758
2002	293,334	216,110	207,023	262,642		26,801,894	750,000	14,267	764,267	390,059	366,870	663,359	29,109,514
2003	293,334	221,290	212,203	261,455		26,034,902	750,000	14,267	764,267	382,575	374,208	663,359	29,492,270
2004	293,334	226,470	218,123	260,244		25,263,201	750,000	14,267	764,267	374,941	381,692	663,359	29,875,026
2005	293,334	232,390	223,303	259,010		24,487,554	750,000	14,267	764,267	367,155	397,129	663,359	30,257,782
2006	293,334	237,570					750,000	14,267	764,267				

REPAYMENT OF RECLAMATION PROJECTS

REPAYMENT SCHEDULE—WEBER BASIN PROJECT—Continued

Fiscal year	Irrigation water						Municipal and industrial water						
	Revenues from—		Ad valorem tax applied to irrigation	Other revenues applied to irrigation	Increase in allocation	Unpaid irrigation allocation	Revenues from—		Total	Interest	Principal	Increase in allocation	Unpaid M&I allocation
	Irrigation water users	Ad valorem tax					M&I water users	Ad valorem tax					
2007--	293,334	242,760	228,493	257,750	---	23,707,977	750,000	14,267	764,267	359,213	405,054	---	17,555,594
2008--	293,334	248,670	234,403	256,465	---	22,923,775	750,000	14,267	764,267	351,112	413,155	---	17,142,439
2009--	293,334	254,600	240,333	255,155	---	22,134,953	750,000	14,267	764,267	342,849	421,418	---	16,721,021
2010--	293,334	261,260	246,993	253,818	---	21,340,808	750,000	14,267	764,267	334,421	429,846	---	16,291,175
2011--	293,334	267,180	252,913	252,455	---	20,542,106	750,000	14,267	764,267	325,824	438,443	---	15,852,732
2012--	293,334	273,100	258,833	251,064	---	19,738,875	750,000	14,267	764,267	317,055	447,212	---	15,405,520
2013--	293,334	280,500	266,233	249,645	---	18,929,663	750,000	14,267	764,267	308,110	456,157	---	14,949,363
2014--	293,334	286,430	31,233	248,198	---	18,356,898	750,000	255,197	1,005,197	298,987	706,210	---	14,243,153
2015--	293,334	293,820	31,233	241,904	---	17,790,427	750,000	262,587	1,012,587	284,863	727,724	---	13,515,429
2016--	293,334	300,490	323,336	235,336	---	17,230,524	750,000	269,257	1,019,257	270,309	748,948	---	12,766,481
2017--	293,334	307,890	31,233	228,503	---	16,677,454	750,000	276,657	1,026,657	255,329	771,328	---	11,995,153
2018--	293,334	315,290	31,233	221,385	---	16,131,502	750,000	284,057	1,034,057	239,903	794,154	---	11,200,999
2019--	293,334	322,690	44,934	213,978	---	15,579,256	435,990	277,756	713,746	224,021	489,725	---	10,711,274
2020--	291,232	330,100	45,500	206,273	---	15,036,251	417,990	284,600	702,590	214,225	488,365	---	10,222,909
2021--	291,232	338,980	45,500	198,267	---	14,501,252	411,990	293,480	711,470	204,458	507,012	---	9,715,897
2022--	268,226	351,919	0	189,923	---	14,043,103	396,990	351,919	763,909	194,317	569,592	---	9,146,305
2023--	262,226	343,440	0	180,591	---	13,600,286	366,986	343,440	740,430	182,927	557,503	---	8,588,802
2024--	226,626	351,580	0	170,894	---	13,202,766	321,990	360,460	682,450	171,776	546,790	---	8,042,012
2025--	181,339	360,460	0	160,840	---	12,860,587	321,990	370,080	692,070	160,840	521,610	---	7,520,402
2026--	180,049	370,080	0	150,408	---	12,530,130	321,990	378,970	700,960	150,408	541,662	---	6,978,740
2027--	160,079	378,970	0	132,296	---	9,237,755	321,990	387,850	709,840	139,575	561,385	---	6,417,355
2028--	144,874	387,850	0	128,347	---	8,964,534	321,990	398,220	709,840	128,347	581,493	---	5,835,862
2029--	131,123	398,220	0	108,333	---	8,125,078	321,990	398,220	720,210	116,717	603,493	---	5,232,369
2030--	101,594	407,840	0	104,647	---	7,918,837	300,000	407,840	707,840	104,647	603,193	---	4,629,176
2031--	73,419	418,200	0	92,584	---	7,752,834	285,000	418,200	703,200	92,584	610,616	---	4,018,560
2032--	36,125	428,860	0	831,071	---	6,885,638	270,000	428,860	698,860	80,371	618,489	---	3,400,071
2033--	25,375	439,670	0	68,001	---	6,792,262	255,000	439,670	694,670	68,001	626,669	---	2,773,402
2034--	15,135	450,780	450,780	4,767,628	---	1,558,719	240,000	---	240,000	55,468	184,532	---	2,588,870
2035--	11,075	461,130	461,130	51,777	---	1,034,737	225,000	---	225,000	51,777	173,223	---	2,415,647
2036--	11,075	472,970	472,970	48,313	---	502,379	210,000	---	210,000	48,313	161,687	---	2,253,960
2037--	11,075	484,822	288,281	45,079	---	157,944	195,000	196,541	391,541	45,079	346,462	---	1,907,498
2038--	---	---	---	157,944	---	0	---	---	---	---	---	---	---
Total	17,600,040	17,584,431	9,859,360	22,088,600	47,162,225	---	42,629,126	7,725,071	50,354,197	23,809,695	26,544,502	---	18,174,960

1 Unassigned revenues from Unit Development Notices 1-6.

WEBER RIVER PROJECT

UTAH

The Weber River project (formerly First division of the Salt Lake Basin project) in Summit, Morgan, Wasatch, Weber, and Davis Counties, Utah, was approved by the President on January 8, 1927.

The project was developed to furnish a supplemental water supply to about 108,478 acres of land. The project consists of the Echo Dam and Reservoir and the Weber-Provo Diversion Canal.

The total cost of the project is \$2,528,637. In addition, \$196,247 repayment obligation for Weber-Provo Diversion Canal remained with Weber River project. The cost of the feature was transferred to Provo River project.

Cost and repayment summary:

Amount allocated:	
Irrigation plant—Echo Dam and Reservoir ...	\$2,527,239
Property transfers	1,398
Total cost	2,528,637
Other charges:	
Repayment obligations assumed from	
Provo River project	196,247
Interest and penalties	5,897
Subtotal other charges	202,144
Total	2,730,781

Repayment and other credits:

Repayments realized:	
Repayments realized from other sources	1,154
Repayment contracts matured	2,684,870
Contributions	44,757
Total repayment	2,730,781

The total obligation of the Weber River Water Users Association has been repaid. The project is operated and maintained by the Association.

On June 11, 1966, a public ceremony was held at Echo Dam in celebration of the final payment of the Association's contracted obligation to the United States.

The present irrigable area for service is 108,975 acres, with 87,676 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$9,818,014 and \$111.98, respectively.

CONTRACTS, ETC.

1926, December 16: Contract 11r-220 with Weber River Water Users Association. Association assumed repayment obligation not to exceed \$3 million in 20 equal annual installments.

1938, December 20: Contract 11r-220, supplemental contract Weber River Water Users Association. Association to repay remaining repayment obligation in 30 equal annual payments.

1966, July 13: Release of mortgages on irrigation facilities. Thirty-three organizations had mortgaged their facilities prior to construction of the project to provide security for the Association's repayment obligation to the United States.

Summary of status of repayment contract:

Total value of repayment contract	\$2,684,870
Total matured charges	2,684,870
Total matured charges repaid	2,684,870

CONSTRUCTION REPAYMENT HISTORY

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1928	\$3,000,000							
1929	3,000,000							
1930	3,000,000							
1931	3,000,000							
1932	3,000,000	(²)						
1933	3,004,871	(²)						
1934	3,004,871	(²)						
1935	¹ 2,883,946	(²)						
1936	2,875,695	(²)						
1937	2,875,872	² \$71,749		\$71,749	\$71,749		\$71,749	\$71,749
1938	³ 2,685,872	143,499		143,499	143,499		143,499	215,248
1939	2,685,872	89,415		89,415	89,415		89,415	304,663
1940	2,685,872	88,193		88,193	88,193		88,193	392,856
1941	2,685,872	88,193		88,193	88,193		88,193	481,049
1942	2,685,872	88,193		88,193	88,193		88,193	569,242
1943	2,685,872	88,193		88,193	88,193		88,193	657,435
1944	2,685,872	88,193		88,193	88,193		88,193	745,628
1945	2,685,872	88,193		88,193	88,193		88,193	833,821
1946	2,685,872	88,193		88,193	88,193		88,193	922,014
1947	2,685,872	88,193		88,193	88,193		88,193	1,010,207
1948	2,685,872	88,193		88,193	88,193		88,193	1,098,400
1949	2,685,872	88,193		88,193	88,193		88,193	1,186,593
1950	2,685,872	88,193		88,193	88,193		88,193	1,274,786
1951	2,685,872	88,193		88,193	88,193		88,193	1,362,979
1952	2,685,872	88,192		88,192	88,192		88,192	1,451,171
1953	2,685,872	88,193		88,193	88,193		88,193	1,539,364
1954	2,685,872	88,193		88,193	88,193		88,193	1,627,557
1955	2,685,872	88,193		88,193	88,193		88,193	1,715,750
1956	2,685,872	88,193		88,193	88,193		88,193	1,803,943
1957	2,685,872	88,193		88,193	88,193		88,193	1,892,136
1958	2,685,872	88,193		88,193	88,193		88,193	1,980,329
1959	2,685,872	88,193		88,193	88,193		88,193	2,068,522
1960	2,685,872	88,192		88,192	88,192		88,192	2,156,714
1961	2,685,872	88,193		88,193	88,193		88,193	2,244,907
1962	2,685,872	88,193		88,193	88,193		88,193	2,333,100
1963	2,685,872	88,088		88,088	88,088		88,088	2,421,188
1964	2,685,872	88,298		88,298	88,298		88,298	2,509,486
1965	2,685,872	88,193		88,193	88,193		88,193	2,597,679
1966	⁴ 2,684,870	87,191		87,191	87,191		87,191	2,684,870
Total		2,684,870		2,684,870	2,684,870		2,684,870	

¹ Obligation reduced to actual cost.² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1932, \$148,158; 1933, \$143,853; 1934, \$143,853; 1935, \$143,853; 1936,

\$71,926.

³ \$190,000 of cost and obligation transferred to Provo River Water Users' Association.⁴ Credit. Sale of two buildings applied to repayment contract.

WICHITA PROJECT

KANSAS

The construction of the Wichita project, Cheney division, Kansas, was authorized by act of September 14, 1960 (74 Stat. 1026). The project consists of a dam, reservoir, and related facilities near Cheney, Kans., on the North Fork of the Ninnescah River, for the purpose of furnishing 42,900 acre-feet of water annually for municipal and industrial uses by the city of Wichita. In conjunction therewith, the project provides for controlling floods, enhancing recreational opportunities, and preserving and propagating fish and wildlife.

The total estimated project cost is \$14,778,177. Project costs are allocated as follows:

Statement of cost and repayment:

Plant, property, and equipment:	
Cheney Dam and Reservoir	\$13,928,429
Recreation facilities	405,689
Fish and wildlife facilities	428,944
Subtotal plant, property, and equipment ...	14,763,062
Property transfers	15,115
Total cost	14,778,177
Allocation:	
Reimbursable:	
Municipal water supply	5,986,343
Nonreimbursable:	
Flood control	4,796,063
Fish and wildlife	3,590,082
Recreation	405,689
Total	14,778,177

Repayment and other credits:

Repayment realized:	
Repayment contracts matured	247,560
Other repayment	55,000

Subtotal repayment realized	302,560
Repayment contracts unmatured:	5,496,675
Operation and maintenance credit	187,108
Total repayment	5,986,343
Nonreimbursable (74 Stat. 1026)	8,791,834
Total repayment and other credits	14,778,177

The project is operated by the city of Wichita.

Repayment contract.—A repayment contract with the city of Wichita was executed January 18, 1961, for a maximum repayment obligation of \$7,223,000, plus not to exceed 5 percent for possible contingencies resulting from fluctuations in construction costs plus interest. The first annual installment became due and payable on October 1, 1966. Final construction notice was issued February 7, 1969, establishing repayable obligation at \$5,744,235.

Summary of status of repayment contract:

Total value of contracted repayment	\$5,744,235 ¹
Total matured charges	247,560
Total matured charges repaid	247,560
Total matured charges unpaid	0

¹ Includes credits of \$187,108 to account for equipment transferred and \$55,000 advanced for investigation studies.

CONTRACT AND NOTICE

1961, January 18: Contract 14-06-500-538 with the city of Wichita for construction of project works and repayment of reimbursable costs over a 40-year period following completion of construction.

1969, February 7: Notice issued establishing repayable obligation at \$5,744,235.

CONSTRUCTION REPAYMENT HISTORY—CITY OF WICHITA

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1967-----	\$7,584,000	\$155,530	-----	\$155,530	\$155,530	-----	\$155,530	\$155,530
1968-----	7,584,000	48,720	-----	48,720	48,720	-----	48,720	204,250
1969-----	5,744,235	43,310	-----	43,310	43,310	-----	43,310	247,560
Total -----		247,560	-----	247,560	247,560	-----	247,560	-----

REVISED REPAYMENT SCHEDULE—CITY OF WICHITA—JANUARY 1969
(PURSUANT TO ARTICLE 5 OF CONTRACT 14-06-500-538 DATED JANUARY 18, 1961)

Calendar year	Payment	Interest at 2.625 percent	Principal	Unpaid Balance
1966-----	\$192,500.00	\$37,696.55	\$154,803.45	\$5,589,431.96
1967-----	192,500.00	146,722.59	45,777.41	5,543,654.55
1968-----	192,500.00	145,520.93	46,979.07	5,496,675.48
1969-----	152,533.21	144,287.73	8,245.48	5,488,430.00
1970-----	160,562.29	144,071.29	16,491.00	5,471,939.00
1971-----	168,374.40	143,638.40	24,736.00	5,447,203.00
1972-----	175,971.08	142,989.08	32,982.00	5,414,221.00
1973-----	183,350.30	142,123.30	41,227.00	5,372,994.00
1974-----	190,513.09	141,041.09	49,472.00	5,323,522.00
1975-----	197,460.45	139,742.45	57,718.00	5,265,804.00
1976-----	204,190.36	138,227.36	65,963.00	5,199,841.00
1977-----	210,703.83	136,495.83	74,208.00	5,125,633.00
1978-----	217,001.87	134,547.87	82,454.00	5,043,179.00
1979-----	223,082.45	132,383.45	90,699.00	4,952,480.00
1980-----	228,947.60	130,002.60	98,945.00	4,853,535.00
1981-----	234,595.29	127,405.29	107,190.00	4,746,345.00
1982-----	240,026.56	124,591.56	115,435.00	4,630,910.00
1983-----	245,242.39	121,561.39	123,681.00	4,507,229.00
1984-----	250,240.76	118,314.76	131,926.00	4,375,303.00
1985-----	255,022.70	114,851.70	140,171.00	4,235,132.00
1986-----	258,165.22	111,172.22	146,993.00	4,088,139.00
1987-----	261,127.65	107,313.65	153,814.00	3,934,325.00
1988-----	263,911.03	103,276.03	160,635.00	3,773,690.00
1989-----	266,515.36	99,059.36	167,456.00	3,606,234.00
1990-----	268,865.64	94,663.64	174,202.00	3,432,032.00
1991-----	271,114.84	90,090.84	181,024.00	3,251,008.00
1992-----	273,183.96	85,338.96	187,845.00	3,063,163.00
1993-----	275,074.03	80,408.03	194,666.00	2,868,497.00
1994-----	276,785.05	75,298.05	201,487.00	2,667,010.00
1995-----	278,317.01	70,009.01	208,308.00	2,458,702.00
1996-----	279,669.93	64,540.93	215,129.00	2,243,573.00
1997-----	280,844.79	58,893.79	221,951.00	2,021,622.00
1998-----	281,839.58	53,067.58	228,772.00	1,792,850.00
1999-----	282,655.31	47,062.31	235,593.00	1,557,257.00
2000-----	283,292.00	40,878.00	242,414.00	1,314,843.00
2001-----	283,600.63	34,514.63	249,086.00	1,065,757.00
2002-----	283,900.12	27,976.12	255,924.00	809,833.00
2003-----	284,100.12	21,258.12	262,842.00	546,991.00
2004-----	284,300.51	14,358.51	269,942.00	277,049.00
2005-----	284,321.54	7,272.54	277,049.00	0
Total -----	9,636,902.95	3,892,667.54	5,744,235.41	-----

WILLISTON PROJECT

NORTH DAKOTA

The Williston project was authorized for construction by the Bureau of Reclamation by the Secretary of the Interior on January 23, 1906, and water was available for irrigation in 1908. Pumps installed on a barge in the Missouri River brought water into a settling basin, and thence into the canal system where pumping was necessary. Individual water-right contracts were entered into with the water users.

By 1914 most of the water-right applicants were in default. The obligations were assumed in 1919 by the Williston Irrigation District, which likewise failed to meet the payments due. The project never became fully settled and the landowners were not particularly interested in irrigation after it became available.

In 1924, the Committee of Special Advisers on Reclamation (Fact Finders' Committee) found that the history and prospects of the project did not justify its further operation by the Bureau of Reclamation, and recommended that the project be appraised and sold, and the losses incurred charged to the Reclamation fund.

The act of May 26, 1926 (44 Stat. 653), authorized the cancellation of all water-right charges and the release of all liens existing against the lands in the Williston project on account of the water-right charges. The total amount of \$409,094.69 was thus charged off in the accounts of the United States as a loss to the Reclamation fund.

YAKIMA PROJECT

WASHINGTON

The Yakima project, located in southcentral Washington in the drainage basin of the Yakima River and its tributaries, supplies irrigation water to approximately 462,000 acres. In addition to water supply and irrigation works, the project facilities include two hydroelectric generating plants, totaling 23,250-kilowatt capacity. The project consists of seven divisions: Storage, Kittitas, Tieton, Sunnyside, Roza, Kennewick, and Wapato. Initial construction under the Reclamation Act of 1902 (32 Stat. 388) was authorized on December 12, 1905, when the Secretary of the Interior allocated \$1,000,000 for the Sunnyside project, and \$750,000 for the Tieton project. The projects were combined on March 31, 1909. Other divisions have been authorized subsequently as described below.

The investment to date for Government-constructed facilities on the Yakima project totals \$64,904,243.

Operation of project storage facilities, powerplants, and other reserved works of the Roza and Kennewick divisions, is the responsibility of the Bureau. The water users of each division operate their own irrigation distribution systems, with the exception of the Wapato division which is operated by the Bureau of Indian Affairs. The latter also receives its water supply from the Yakima project.

In 1969, the irrigable acreage for service, the irrigated area, gross crop value, and average value per irrigated acre for the project were as follows:

Irrigation district	Irrigable acreage for service (acres)	Irrigated area (acres)	Gross crop value (dollars)	Average value per irrigated acre (dollars)
Total -----	462,170	383,132	107,422,488	280.38
<i>Full supply</i>				
Kennewick division—Kennewick -----	19,171	12,202	1,696,637	139.05
Kittitas division—Kittitas -----	57,658	51,841	2,768,767	53.41
Roza division—Roza -----	72,511	65,987	28,569,265	432.95
<i>Sunnyside division:</i>				
Benton -----	4,630	3,367	411,255	122.14
Sunnyside Valley and Zillah -----	84,716	63,014	18,085,986	287.02
Grandview -----	3,941	3,349	1,326,780	396.17
Granger -----	1,600	1,389	656,878	472.91
Outlook -----	4,613	4,067	943,089	231.89
Prosser -----	2,155	1,858	517,977	278.78
Snipes Mountain -----	1,915	1,516	743,849	490.67
Tieton division—Yakima—Tieton -----	27,271	22,727	10,511,230	462.50
<i>Supplemental supply</i>				
Various districts, companies, and individuals -----	45,831	38,662	13,175,746	340.79
Wapato irrigation project -----	136,000	113,013	27,983,918	247.62
<i>Temporary supply</i>				
Sunnyside Valley (rentals) -----	158	140	31,111	222.22

ALLOCATION AND REPAYMENT OF COST—YAKIMA PROJECT

	Kennewick division	Kittitas division	Roza division	Storage division	Sunnyside division	Tieton division	Total
Plant property and equipment -----	\$15,096,047	\$8,989,286	\$21,777,501	\$10,401,723	\$4,427,529	\$3,094,322	\$63,786,408
Storage allocation -----	463,800	2,050,733	2,248,610	-6,017,660	605,695	648,822	0
Division costs -----	15,559,847	11,040,019	24,026,111	4,384,063	5,033,224	3,743,144	63,786,408
Corollary costs -----	64,544				891,310		955,854
Rehabilitation and betterment program -----				553,704			553,704
Total cost allocated ..	15,624,391	11,040,019	24,026,111	4,937,767	5,924,534	3,743,144	65,295,966
Funded charges -----		16,293	640,704	13,321	70,813	71,246	812,377
Total -----	15,624,391	11,056,312	24,666,815	4,951,088	5,995,347	3,814,390	66,108,343
Allocation:							
Reimbursable:							
Irrigation -----	10,916,169	11,037,092	22,971,210	4,937,767	5,919,456	3,743,144	59,524,838
Irrigation, funded charges -----		16,293	640,704	13,321	70,813	71,246	812,377
Power -----	3,555,804		1,054,901				4,610,705
Nonreimbursable:							
Irrigation -----		2,927			5,078		8,005
Fish and wildlife -----	1,152,418						1,152,418
Repayment of irrigation allocation:							
Contributions and advances -----	47,702	13,165	158,648	170,796	117,846	36,048	544,205
Depreciation -----			32,973		7,793	5,800	93,487
Miscellaneous revenues Power revenue assistance -----	46,921		4,646,242				10,338,257
Repayment contracts -----	5,692,015		18,976,710	4,697,718	5,980,832	3,778,945	49,263,144
Future contracts and adjustments -----	4,788,131	11,040,808	-138,396	83,512	-60,000		226,516
Total -----	341,400						
Total -----	10,916,169	11,053,973	23,676,177	4,952,026	6,046,471	3,820,793	60,465,609
Surplus -----		588	64,263	938	56,202	6,403	128,394

KENNEWICK DIVISION

The Kennewick division is a combined power and irrigation development which was authorized under act of June 12, 1948 (62 Stat. 382). It was the last unit of the Yakima project to be developed from the water resources of the Yakima River. The authorization provides for construction of the Chandler power canal and powerplant (12,000-kilowatt capacity); a pumping plant and irrigation facilities to serve approximately 21,000 acres; and improvements for fish and wildlife. The total cost estimate of \$15,624,391 includes construction costs of \$14,661,610, funded charges of \$39,311, investigation costs of \$14,163, transitional development costs of \$11,070, allocated storage costs of \$463,800, and Prosser costs integrated with Kennewick of \$434,437. Cost allocations were made as follows:

Reimbursable costs:

Irrigation \$10,916,169

Power 3,555,804
Fish and wildlife contributions 15,000

Subtotal 14,486,973
Nonreimbursable costs—Fish and wildlife 1,137,418
Total 15,624,391

The act of August 25, 1969, authorized the construction of Kennewick division extension. The authorization provides for construction of Keone siphon and relief pumping plants. The estimated cost of \$6,735,000 is not included.

Repayment contracts.—Under an amendatory repayment contract dated July 22, 1953, the Kennewick Irrigation District contracted to repay construction costs totaling \$4,809,700. Previously irrigated lands (4,645 acres) will pay \$1,163,300, and new lands (14,526 acres) will pay \$3,646,400. The amount allocated to the old lands is scheduled for repayment over 66 years, whereas the new lands will be allowed a 10-year de-

velopment period, followed by a repayment period of 56 years. The 1960 notice reduced the obligation to \$4,788,131.

Net revenues derived from the sale of power, which is marketed through the Bonneville Power Administration, are scheduled to repay, over a period of 60 years, the power investment plus over \$5,000,000 of the investment in irrigation facilities. Interest on the unpaid balance of the power investment is computed at 2½ percent. Section 5 of the authorizing act provides that one-fifth of the revenues derived from the interest component may be applied to the irrigation allocation.

CONTRACTS AND NOTICES

- 1921, April 7: Contract with Kennewick Irrigation District provided for the purchase of 150,000 acre-feet of stored and natural flow water, construction of Prosser powerplant (3,000 kilowatts), and rehabilitation of the Highland (4,300 acres) irrigation system at a cost of \$1,005,000, repayable in 40 semiannual installments.
- 1930, October 11: Contract with Kennewick Irrigation District provided for reconstructing the Highlands lateral, pipelines, and pumping plant; constructing a powerplant on Prosser-Chandler canal with District paying operation, maintenance, and depreciation. Cost of plant to be returned from sale of surplus power.
- 1953, July 22: Amendatory contract 14-06-W-56 with the Kennewick Irrigation District provides for repayment of construction costs totaling \$4,809,700, with old lands (4,645 acres) paying \$3.80 per acre for 66 years and new lands (14,526 acres) paying \$4.48 per acre for 56 years following a 10-year development period. Construc-

tion charges due March 15 and June 30 of year following year in which installment accrues. O&M due March 1 and June 30 of current year.

- 1960, December 5: Notice from regional director's office advising of actual storage obligation costs and reducing District's obligation from \$4,809,700 to \$4,788,131.
- 1966, June 10: Notice from regional director advising of change in dates for collection of reserved works O&M from March 15 and June 30 to January 1 and June 30.

The Chandler powerplant began operating in February 1956, and irrigation facilities began delivering water in 1957 on a testing basis.

During the irrigation season, water flowing in the canal to the Chandler pumping and powerplant (Kennewick division) is used primarily to operate the hydraulic pumps and secondarily to generate power. During the nonirrigation season all available flows are used to produce power. Generation at the Chandler powerplant is marketed by the Bonneville Power Administration.

The development period began on January 1, 1958, at which time full responsibility for operation and maintenance of the irrigation facilities was taken over by the Kennewick Irrigation District.

Status of Kennewick division repayment contract:

Total value of contracted repayment	\$ 4,788,131
Total matured charges	295,677
Total matured charges repaid	263,672
Total matured charges unpaid	32,005

CONSTRUCTION REPAYMENT HISTORY—KENNEWICK DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1959-----	\$4,809,700	\$17,626		\$17,626	\$17,626		\$17,626	\$17,626
1960-----	4,809,700	17,626		17,626	17,626		17,626	35,252
1961-----	² 4,788,131	17,523	¹ \$5,597	23,120	17,523	¹ \$5,597	23,120	58,372
1962-----	4,788,131	17,523		17,523	17,523		17,523	75,895
1963-----	4,788,131	17,523		17,523	17,523		17,523	93,418
1964-----	4,788,131	17,523		17,523	17,523		17,523	110,941
1965-----	4,788,131	17,523		17,523	17,523		17,523	128,464
1966-----	4,788,131	17,523		17,523	17,523		17,523	145,987
1967-----	4,788,131	17,523		17,523	17,523		17,523	163,510
1968-----	4,788,131	17,524		17,524	17,524		17,524	181,034
1969-----	4,788,131	114,643		114,643	82,638		82,638	263,672
Total-----		290,080	5,597	295,677	258,075	5,597	263,672	
Collected-----				263,672				
Uncollected-----				32,005				

¹ Storage construction revenue credits.

² Reduction reflects actual storage obligation authorized by Public Law 86-204 (73 Stat. 429).

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—KENNEWICK DIVISION

Fiscal year	Accruals	Collections
1958-----	\$6,700	\$6,700
1959-----	10,832	10,832
1960-----	10,576	10,576
1961-----	14,065	14,065
1962-----	15,088	15,088
1963-----	22,207	22,207
1964-----	16,670	16,670
1965-----	22,693	22,693
1966-----	61,622	61,622
1967-----	18,937	18,937
1968-----	26,723	26,723
1969-----	25,670	25,670
Total -----	251,783	251,783

KITTITAS DIVISION

The Kittitas division supplies irrigation water to 57,399 acres along the upper reaches of the Yakima River in the Kittitas Valley. The total cost of the division was \$11,040,019.

In 1925, a projected irrigation system designed to deliver water to approximately 70,000 acres at an estimated cost of \$9,000,000 was found feasible for construction by the Bureau of Reclamation. Construction work started in 1925 and irrigation operations commenced in 1930. Operation and maintenance responsibility was transferred to the District in 1934 and thereafter continued under District management. The irrigation facilities include: 26 miles of main canal, 1,320 cubic feet per second capacity; Yakima River siphon, 925 cubic feet per second capacity; North Branch Canal, 36 miles long; South Branch Canal, 18 miles long; Wippel pumping plant, 50 cubic feet per second capacity; and about 329 miles of distribution laterals.

Repayment contracts.—Organized under the name of the Kittitas Reclamation District in 1911, the District entered into a contract in February 1921 for 372,000 acre-feet of natural flow and storage water from the Yakima project system. This contract was amended in 1945 to reduce the water supply to 342,000 acre-feet, and the District's pro rata share for repayment of storage costs was estimated at \$2,223,000.

Upon request of the District the lands were reclassified in 1943, and thereafter followed an economic study and report on a repayment plan. The reanalysis resulted in an amendatory repayment contract, dated January 20, 1949, which was specifically authorized by the act of May 6, 1949 (63 Stat. 62). The new contract combined the storage and irrigation works obligation in one account totaling \$9,923,058, and provided for annual payment of \$2 per acre on 53,637 acres and \$1.50 per acre on 3,762.5 acres, with repayment commencing in 1948. Currently there are 53,986 acres paying at the \$2 rate and 3,762.5 acres at \$1.50. Variations in these basic annual installments are provided for under a formula which adjusts the figure in accordance with crop returns and parity ratio factors. Full repayment of the construction account in 89 years is anticipated.

CONTRACTS AND NOTICES

- 1921, February 16; 1930, November 1; 1940, June 4; and 1945, January 10: Contracts with Kittitas Reclamation District to purchase 342,000 acre-feet of stored water. Estimated cost \$2,223,000. Payable in 80 graduated semiannual installments.
- 1925, December 19; 1927, July 5; 1927, July 26; 1928, September 7; 1937, July 6; 1939, June 6; 1940, June 4: Contracts with Kittitas Reclamation District for construction of irrigation system.
- 1949, January 20: Amendatory contract 11r-1532 with Kittitas Reclamation District placed the unpaid obligation at \$9,923,058 and provided for repayment under the normal and percentage formula adjusted by parity. Construction charges due June 15 and December 15 of year following year in which installment accrues. O&M due April 1 of current year.
- 1960, November 25: Notice from regional director's office advising of actual storage obligation costs and reducing District's obligation from \$11,225,652 to \$11,040,808.
- 1966, June 10: Notice from regional director advising of change in dates for collection of reserved works O&M from April 1 to January 15 and June 30.

Summary of status of repayment contracts:

Total value of contracted repayment	\$11,040,808
Total matured charges	3,453,157
Total matured charges repaid	3,453,157
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—KITITAS DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1926	\$9,000,000							
1927	9,000,000							
1928	9,000,000							
1929	9,000,000							
1930	9,000,000							
1931	9,000,000							
1932	9,000,000							
1933	9,000,000							
1934	9,000,000							
1935	9,000,000							
1936	9,000,000							
1937	9,000,000							
1938	9,000,000	\$63,671		\$63,671	\$63,671		\$63,671	\$63,671
1939	9,000,000	72,668		72,668	72,668		72,668	136,339
1940	9,000,000	76,128	¹ \$19,032	57,096	57,096		57,096	193,435
1941	9,000,000	76,127		76,127			0	193,435
1942	9,000,000	76,128		76,128		\$76,127	76,127	269,562
1943	9,000,000	76,128		76,128	76,128	76,128	152,256	421,818
1944	9,000,000	83,049		83,049	83,049		83,049	504,867
1945	9,000,000	92,600		92,600	92,600		92,600	597,467
1946	8,991,653	102,889		102,889	102,889		102,889	700,356
1947	8,991,653	113,178		113,178	113,178		113,178	813,534
1948	8,991,653	123,467		123,467				813,534
1949	10,736,593	294,146	² 253,793	40,353	163,820		163,820	977,354
1950	11,225,652	148,585	³ 489,060	637,645	148,585	489,060	637,645	1,614,999
1951	11,225,652	117,269		117,269	117,269		117,269	1,732,268
1952	11,225,652	110,709		110,709	110,709		110,709	1,842,977
1953	11,225,652	142,024		142,024	142,024		142,024	1,985,001
1954	11,225,652	111,582		111,582	111,582		111,582	2,096,583
1955	11,225,652	61,010		61,010	61,010		61,010	2,157,593
1956	11,225,652	70,297		70,297	70,297		70,297	2,227,890
1957	11,225,652	77,583		77,583	77,583		77,583	2,305,473
1958	11,225,652	58,603		58,603	58,603		58,603	2,364,076
1959	11,225,652	42,457		42,457	42,457		42,457	2,406,533
1960	11,225,652	70,031		70,031	70,031		70,031	2,476,564
1961	⁴ 11,040,808	95,992		95,992	95,992		95,992	2,572,556
1962	11,040,808	93,868		93,868	93,868		93,868	2,666,424
1963	11,040,808	91,667		91,667	91,667		91,667	2,758,091
1964	11,040,808	97,832		97,832	97,832		97,832	2,855,923
1965	11,040,808	108,254		108,254	108,254		108,254	2,964,177
1966	11,040,808	113,584		113,584	113,584		113,584	3,077,761
1967	11,040,808	124,756		124,756	124,756		124,756	3,202,517
1968	11,040,808	134,299		134,299	134,299		134,299	3,336,816
1969	11,040,808	116,341		116,341	116,341		116,341	3,453,157
Total		3,236,922	216,235	3,453,157	2,811,842	641,315	3,453,157	

¹ Decrease. Covers deferment of 1939 construction charges, under act of Aug. 4, 1939.

² Decrease. Payment deferred pending approval of contract H-1532, dated Jan. 20, 1949.

³ Storage contract of Feb. 16, 1921, as amended by contracts of Nov. 1, 1930, June 4, 1940, and Jan. 10, 1945, included in amendatory contract H-1532, dated Jan. 20, 1949.

⁴ Decrease reflects allocation of actual storage obligation authorized by act of Aug. 25, 1959.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—KITITITAS DIVISION

Fiscal year	Accruals	Collections
1930-----	\$19,691	\$19,691
1931-----	54,295	54,295
1932-----	67,179	67,179
1933-----	66,904	66,904
1934-----	0	0
1935-----	0	0
1936-----	0	0
1937-----	0	0
1938-----	0	0
1939-----	0	0
1940-----	0	0
1941-----	4,254	4,254
1942-----	2,332	2,332
1943-----	3,814	3,814
1944-----	2,249	2,249
1945-----	4,770	4,770
1946-----	4,000	4,000
1947-----	19,700	19,700
1948-----	21,849	21,849
1949-----	19,776	19,776
1950-----	20,360	20,360
1951-----	17,720	17,720
1952-----	23,197	23,197
1953-----	23,605	23,605
1954-----	21,392	21,392
1955-----	20,566	20,566
1956-----	24,894	24,894
1957-----	24,895	24,895
1958-----	24,311	24,311
1959-----	30,369	30,369
1960-----	24,113	24,113
1961-----	23,623	23,623
1962-----	22,901	22,901
1963-----	25,849	25,849
1964-----	31,559	31,559
1965-----	20,568	20,568
1966-----	28,839	28,839
1967-----	35,686	35,686
1968-----	35,891	35,891
1969-----	38,885	38,885
Total-----	810,036	810,036

ROZA DIVISION

The Roza division was authorized by the President on November 6, 1935. The first delivery of water was made to 1,861 acres in 1941. Additional acreage was brought in as rapidly as irrigation facilities were completed, and water was available to the entire 72,000 acres in 1950. Payment of construction charges commenced on 9,420.9 acres in 1946, and, in 1956, a total of 72,000 acres were paying construction charges. The contract with the Department of the Army reduced the total acres by 489.2 to 71,510.8 acres. Construction of the Roza powerplant was begun late in 1955 and completed in March 1958.

Repayment contracts.—The Roza division is designated as a high-line development of the Yakima project. The Yakima-Benton (later Roza) Irrigation District,

established April 26, 1920, contracted with the United States for 285,000 acre-feet of Yakima project water. The water supply contract was amended April 15, 1935, to 375,000 acre-feet and the repayment obligation was fixed at \$2,500,000. The District entered into a contract on December 13, 1935, for the construction of irrigation facilities to serve 72,000 acres; also an 11,250-kilowatt hydroelectric powerplant to supply power for pumping and commercial use. The construction repayment obligation stipulated in the contract was \$15,000,000. The facilities constructed to date include a diversion dam, 95-mile main canal, six wasteways, nine pumping plants, 70 miles of 3.4-kilovolt power transmission line, a power substation, approximately 400 miles of distribution laterals, and the Roza powerplant. Construction costs exceeded the original estimate because of rising costs during and following World War II; consequently the District increased its maximum repayment obligation to \$21,000,000 under an amendatory contract, dated January 17, 1949. Subsequent economic studies and engineering studies, particularly with reference to power features and the payment capacity of the lands, are incorporated in an "Economic Report and Repayment Plan," dated June 1949. This report provided the basis for further amending the construction repayment contract to provide for annual payments consistent with the ability of the water users to pay and consequent extension of the repayment period. The resulting amendatory contract, dated July 22, 1953, was specifically authorized by the act of June 30, 1954 (68 Stat. 359). Under the contract of July 22, 1953, the Roza Irrigation District's maximum construction obligation was changed to \$19,150,000, which excludes cost of power facilities that are to be paid by power revenues. The construction cost as of June 30, 1969, totals \$24,026,111.

The Roza powerplant started operation in 1958. Summer production is used to operate the division's pumping plants. Power in excess of pumping requirements is marketed by the Bonneville Power Administration.

Repayment of an additional \$78,100 is covered by contract dated February 10, 1940, with the Terrace Heights Irrigation District. It provides for construction of distribution facilities to take water from the Roza Main Canal to serve part of the District lands by gravity, which replaces previous arrangements under which all water had to be pumped.

The Roza Irrigation District took over operation and maintenance of the Roza division facilities on January 1, 1961. Operation of Roza Diversion Dam, 10.9 miles

of the main canal, powerplant, and storage facilities was retained by the United States.

CONTRACTS AND NOTICE

- 1935, December 13: Contract 11r-842 with Roza Irrigation District to repay construction obligation of \$15,000,000.
- 1940, February 10: Contract 11r-1212 with Terrace Heights Irrigation District for \$78,100, to be repaid in fixed installments due June 30 and December 31.
- 1949, January 17: Contract with Roza Irrigation District raising the construction obligation to \$21,000,000.
- 1953, July 22: Contract 14-06-W-69 with Roza Irrigation District establishing the construction obligation, including storage, at \$19,150,000. Installments based on \$1 per acre, with annual increments of 20 cents until rate reached \$4.10 per acre. Normal and percentage plus parity plan is optional. Payout will be completed in about 84 years from the year 1942. Construction charges due June 30 and December 31 of year following year in which installment accrues. O&M due December 15 and June 15.

1955, March 24: Contract 14-06-100-699 with Department of the Army. Army acquired 489.2 acres of land in Roza Irrigation District for artillery range and paid remaining construction charges thereon of \$130,113 in full.

1957, June 4: Contract 14-06-W-69, supplement No. 1. Reduced Roza Irrigation District obligation from \$19,150,000 to \$19,019,887 to reflect payment of \$130,113 received from Department of the Army.

1960, November 25: Notice from regional director's office advising of actual storage obligation costs and reducing Roza Irrigation District obligation from \$19,019,887 to \$18,768,497.

Summary of status of Roza division repayment contracts:

Total value of contracted repayment	\$18,976,710
Total matured charges	4,064,797
Total matured charges repaid	4,064,797
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—ROZA DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1947	\$15,105,953							
1948	15,138,849	\$141,548		\$141,548	\$141,548		\$141,548	\$141,548
1949	21,159,621	79,195		79,195	79,195		79,195	220,743
1950	21,159,621	74,475		74,475	74,475		74,475	295,218
1951	21,078,100	112,680		112,680	111,975		111,975	407,193
1952	21,078,100	109,377		109,377	110,082		110,082	517,275
1953	21,078,100	103,998		103,998	103,998		103,998	621,273
1954	21,078,100	61,248		61,248	61,248		61,248	682,521
1955	19,228,100	88,958	¹ \$53,796	¹ 142,754	88,958	¹ \$53,796	¹ 142,754	825,275
1956	19,228,100	138,507		138,507	138,507		138,507	963,782
1957	19,228,100	149,531		149,531	149,531		149,531	1,113,313
1958	19,228,100	296,685		296,685	296,685		296,685	1,409,998
1959	19,228,100	180,875		180,875	180,875		180,875	1,590,873
1960	19,228,100	195,177		195,177	195,177		195,177	1,786,050
1961	² 18,976,710	209,479		209,479	209,479		209,479	1,995,529
1962	18,976,710	223,316		223,316	223,316		223,316	2,218,845
1963	18,976,710	222,043		222,043	222,043		222,043	2,440,888
1964	18,976,710	258,814		258,814	258,814		258,814	2,699,702
1965	18,976,710	259,626		259,626	259,626		259,626	2,959,328
1966	18,976,710	266,738		266,738	266,738		266,738	3,226,066
1967	18,976,710	273,919		273,919	273,919		273,919	3,499,985
1968	18,976,710	279,666		279,666	279,666		279,666	3,779,651
1969	18,976,710	285,146		285,146	285,146		285,146	4,064,797
Total		4,011,001	53,796	4,064,797	4,011,001	53,796	4,064,797	

¹ Storage contract of July 8, 1921, as amended Apr. 15, 1935, is included in amendatory contract 14-06-W-69 dated July 22, 1953.

² Decrease reflects allocation of actual storage obligation authorized by act of Aug. 25, 1959.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—ROZA DIVISION

Fiscal year	Accruals	Collections
1950	\$84,470	\$84,470
1951	260,022	260,022
1952	332,233	332,233
1953	369,098	369,098
1954	251,216	251,216
1955	369,423	369,423
1956	439,066	439,066
1957	430,000	430,000
1958	443,618	443,618
1959	458,901	458,901
1960	453,900	453,900
1961	24,600	24,600
1962	48,334	48,334
1963	39,738	39,738
1964	69,119	69,119
1965	22,597	22,597
1966	59,449	59,449
1967	41,939	41,939
1968	70,657	70,657
1969	55,638	55,638
Total	4,324,018	4,324,018

STORAGE DIVISION

A Government-operated division of the Yakima project, responsible for the operation and maintenance of six reservoirs (total capacity 1,063,800 acre-feet) and the administration of water supply contracts and distribution of water derived from the Yakima River and its tributaries. Storage and natural flow rights are vested in the United States under a withdrawal agreement, dated May 4, 1905. The rights of prior appropriations were established by limiting agreements when the Government withdrawal agreement was entered into.

Repayment contracts.—Contracts for repayment of storage system construction costs by irrigation interests total \$3,978,475. Repayments commenced in 1915. On June 30, 1969, a total of \$3,275,445 had been paid on the construction account.

Rehabilitation and betterment.—Rehabilitation and betterment work on the Storage division, costing \$719,262, was completed in 1953. Repayment is being made over a 20-year period by means of special operation and maintenance assessments.

CONTRACTS

1914, August 1: Act provides for reimbursement to Reclama-

tion fund for furnishing of 573 second-feet of water to Yakima Indian Reservation in amount of \$635,000.

1921, February 16, and 1930, November 1: Contracts with Kittitas Reclamation District to purchase 372,000 acre-feet of stored water. Estimated cost \$2,418,000, payable in 80 graduated semiannual installments.

1921, March 31: Agreement with Office of Indian Affairs to purchase 250,000 acre-feet of stored water for Yakima Indian Reservation. Estimated cost \$1,625,000. By act of February 24, 1938, repayment period extended to 40 years.

1921, July 8, and 1935, April 15: Contracts with Roza Irrigation District to purchase 375,000 acre-feet of stored water. Estimated cost \$2,500,000. Payable in 80 graduated semiannual installments.

1931, July 11: Warren Act contract Ilr-15 with Snipes Mountain Irrigation District for sale of water. Obligation of \$28,740 was based on estimated cost of \$10 per acre-foot, subject to adjustment.

1936, September 3: Agreement with Office of Indian Affairs to purchase 100,000 acre-feet of stored water. Estimated cost \$800,000, payable in 40 equal annual installments.

1945, January 5: Contract Ilr-1439 with Granger Irrigation District for sale of water. Repayment based on estimated cost of \$7.50 per acre-foot for 20 years, subject to adjustment.

1945, January 22: Contract Ilr-1430 with Outlook Irrigation District for sale of water at \$7.50 per acre-foot for 20 years, subject to adjustment.

In addition, there are contracts to purchase stored water with 34 districts, companies, and individuals.

All storage contracts are paid out; only two agreements with Bureau of Indian Affairs have unmaturred balances.

Construction installment on Indian Affairs 720 cubic feet per second agreement and 100,000 acre-foot agreement due December 31. O&M due February 1.

Status of Storage division repayment contracts:

Total value of contracted repayment	\$3,978,475
Total matured charges	3,275,445
Total matured charges repaid	3,275,445
Total matured charges unpaid	0

Status of rehabilitation and betterment (Storage division) repayment contracts:

Total value of contracted repayment	\$719,242
Total matured charges	682,347
Total matured charges repaid	682,347
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—STORAGE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1915	\$635,000	\$110,000		\$110,000	\$110,000		\$110,000	\$110,000
1916	635,000	101,260		101,260	101,260		101,260	211,260
1917	664,870	100,744		100,744	100,744		100,744	312,004
1918	667,202	102,277		102,277	102,277		102,277	414,281
1919	668,202	101,223		101,223	100,523		100,523	514,804
1920	667,002	101,764		101,764	101,134	\$700	101,834	616,638
1921	¹ 2,399,382	57,613		57,613	46,513	630	47,143	663,781
1922	2,403,932	49,569		49,569	42,739	11,100	53,839	717,620
1923	2,457,232	60,282		60,282	53,552	6,830	60,382	778,002
1924	2,457,232	54,765		54,765	48,665	6,730	55,395	833,397
1925	2,459,432	63,365		63,365	57,165	6,100	63,265	896,662
1926	² 4,152,732	88,405		88,405	82,305	6,000	88,305	984,967
1927	4,153,092	81,461		81,461	81,025	6,300	87,325	1,072,292
1928	4,153,092	104,521		104,521	104,285	136	104,421	1,176,713
1929	4,153,252	103,581		103,581	103,581		103,581	1,280,294
1930	4,164,796	105,535		105,535	105,399	536	105,935	1,386,229
1931	4,901,581	107,211		107,211	105,713	136	105,849	1,492,078
1932	³ 4,919,151	100,986		100,986	80,020	1,498	81,518	1,573,596
1933	³ 4,919,151	101,373	⁴ \$466	100,907	3,246		3,246	1,576,842
1934	³ 4,923,330	3,292	⁴ 117,518	⁴ 114,226	683	2,957	3,640	1,580,482
1935	³ 4,922,793	112,356	⁴ 270	112,086	14,807	52	14,859	1,595,341
1936	³ 7,422,523	125,340		125,340	26,961	49	27,010	1,622,351
1937	³ 7,423,111	77,279	⁴ 195,001	⁴ 117,722	27,175	877	28,052	1,650,403
1938	8,073,111	125,481		125,481	29,281	419	29,700	1,680,103
1939	8,098,956	87,584	⁴ 108,833	⁴ 21,249	17,891		17,891	1,697,994
1940	⁶ 8,098,956	107,737	⁴ 32,240	75,497	70,115		70,115	1,768,109
1941	⁶ 8,098,956	106,367		106,367	4,383	65	4,448	1,772,557
1942	⁶ 8,248,956	92,721	⁴ 48,360	44,361	23,065	⁴ 15,965	7,100	1,779,657
1943	8,248,956	124,962		124,962	87,545	32,240	119,785	1,899,442
1944	8,248,956	124,962		124,962	119,785	184	119,969	2,019,411
1945	8,504,634	142,566		142,566	90,768		105,150	2,124,561
1946	8,341,884	220,927		220,927	183,041	14,382	183,041	2,307,602
1947	8,341,884	122,361		122,361	421,696		421,696	2,729,298
1948	8,341,884	186,363		186,363	164,967		164,967	2,894,265
1949	6,607,944	120,556	⁷ 88,920	31,626	53,162		53,162	2,947,427
1950	6,100,134	89,855	⁸ 492,810	⁸ 402,955	127,272	⁸ 492,810	⁸ 365,538	2,581,889
1951	6,100,134	108,250		108,250	108,587		108,587	2,690,476
1952	6,100,134	92,604		92,604	92,041		92,041	2,782,517
1953	6,100,134	180,488		180,488	181,051		181,051	2,963,568
1954	6,100,134	127,883		127,883	127,883		127,883	3,091,451
1955	⁹ 3,600,134	61,216	⁹ 333,333	⁹ 272,117	61,216	⁹ 333,333	⁹ 272,117	2,819,334
1956	3,600,134	60,498		60,498	60,498		60,498	2,879,832
1957	3,600,134	22,363		22,363	22,363		22,363	2,902,195
1958	3,600,134	97,197		97,197	96,016		96,016	2,998,211
1959	3,600,134	64,809		64,809	64,809	1,181	65,990	3,064,201
1960	3,600,134	23,799		23,799	23,799		23,799	3,088,000
1961	¹⁰ 3,978,475	20,158	¹¹ 153,949	¹¹ 133,791	20,158	¹¹ 153,949	¹¹ 133,791	2,954,209
1962	3,978,475	40,678		40,678	40,678		40,678	2,994,887
1963	3,978,475	40,160		40,160	40,160		40,160	3,035,047
1964	3,978,475	40,159		40,159	40,159		40,159	3,075,206
1965	3,978,475	40,159		40,159	40,079		40,079	3,115,285
1966	3,978,475	40,080		40,080	40,160		40,160	3,155,445
1967	3,978,475	40,000		40,000	40,000		40,000	3,195,445
1968	3,978,475	40,000		40,000	40,000		40,000	3,235,445
1969	3,978,475	40,000		40,000	40,000		40,000	3,275,445
Total		4,847,145	-1,571,700	3,275,445	4,172,400	-896,955	3,275,445	

¹ Increase in obligation due to 1921 agreement with Office of Indian Affairs.² Increase in obligation due to 1921 contract with Kittitas Reclamation District.³ Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years, 1931, \$22,265; 1932, \$100,640; 1933, \$97,636; 1934, \$97,636; 1935, \$97,530; 1936, \$48,750.⁴ Decrease. Decreases cover amounts deferred under relief acts.⁵ Increase in obligation due to 1935 contract with Roza Irrigation District.⁶ Adjustment under act of Feb. 24, 1938. Deferred under act of Aug. 4,

1939, construction charges for calendar years 1939, \$29,640; 1940, \$44,640; 1941, \$29,640.

⁷ Decrease. Kittitas amendatory contract of January 20, 1949, includes the Storage contract of Feb. 16, 1921, as amended.⁸ Decrease.⁹ Decrease. Roza amendatory contract of Jan. 17, 1949 includes the Storage obligation originally covered by contract of July 8, 1921 as amended.¹⁰ Increase reflects allocation of actual Storage obligation authorized by act of Aug. 25, 1959.¹¹ Decrease. Overpayments by certain districts credited to R&B, and other obligations.

REHABILITATION REPAYMENT HISTORY—STORAGE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1953	\$725,000	\$51,381		\$51,381	\$51,381		\$51,381	\$51,381
1954	¹ 719,262	57,027		57,027	57,027		57,027	108,408
1955	719,262	36,250		36,250	36,250		36,250	144,658
1956	719,262	34,337		34,337	34,337		34,337	178,995
1957	719,262	34,338		34,338	34,338		34,338	213,333
1958	719,262	38,193		38,193	38,193		38,193	251,526
1959	719,262	36,102		36,102	36,102		36,102	287,628
1960	719,262	35,742		35,742	35,742		35,742	323,370
1961	719,262	21,667	² \$189,324	210,991	21,667	² \$189,324	210,991	534,361
1962	719,262	21,076		21,076	21,076		21,076	555,437
1963	719,262	21,070		21,070	21,070		21,070	576,507
1964	719,262	21,071		21,071	21,071		21,071	597,578
1965	719,262	21,070		21,070	21,070		21,070	618,648
1966	719,262	21,087		21,087	21,087		21,087	639,735
1967	³ 719,242	17,448		17,448	13,106		13,106	652,841
1968	719,242	12,865		12,865	17,207		17,207	670,048
1969	719,242	12,299		12,299	12,299		12,299	682,347
Total		493,023	189,324	682,347	493,023	189,324	682,347	

¹ Decrease to actual costs.² Storage adjustment credits.³ Contract and water right cancelled because of nonpayment of R&B charges. Unpaid balance of contract was \$19.97.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—STORAGE DIVISION

Fiscal year	Accruals	Collections
1915	\$131	\$131
1916	132	132
1917	172	164
1918	21,287	21,277
1919	10,209	10,201
1920	11,110	11,136
1921	21,487	21,471
1922	18,604	12,489
1923	26,018	32,149
1924	20,471	13,404
1925	18,344	20,578
1926	19,254	18,316
1927	25,568	19,347
1928	24,474	36,465
1929	27,536	13,561
1930	37,544	51,491
1931	31,447	31,439
1932	41,632	13,391
1933	15,645	36,515
1934	22,466	20,990
1935	37,143	31,365
1936	30,165	30,479
1937	26,740	28,584
1938	27,711	37,798
1939	28,206	30,534
1940	25,645	25,646
1941	29,385	18,206
1942	17,097	17,105
1943	44,437	29,336
1944	21,561	37,998
1945	31,876	31,075
1946	33,708	23,635
1947	13,627	22,455
1948	80,289	65,533
1949	54,564	18,458
1950	53,007	65,094
1951	34,643	85,387
1952	35,092	35,092
1953	33,473	20,062
1954	37,216	50,627
1955	35,196	35,196
1956	37,694	37,694
1957	42,532	42,532
1958	37,504	37,504
1959	40,073	40,073
1960	45,587	45,587
1961	39,390	39,390
1962	39,707	39,707
1963	49,997	49,997
1964	57,187	57,187
1965	38,252	38,252
1966	52,194	52,194
1967	65,467	65,467
1968	65,533	65,533
1969	75,540	75,540
Total	1,810,969	1,810,969

SUNNYSIDE DIVISION

This division was authorized for construction under the Reclamation Act on December 12, 1905. Authorization included provisions for the purchase of an irrigation system built by the Washington Irrigation Co. serving approximately 45,000 acres. Subsequent de-

velopment by the Government enlarged the system to irrigate 103,570 acres. The major unit of this division is the Sunnyside Valley Irrigation District, totaling 84,610 irrigable acres, and 18,960 acres are included in minor units listed as follows:

	Acres
Benton Irrigation District	4,630
Granger Irrigation District	1,600
Outlook Irrigation District	4,613
Grandview Irrigation District	3,941
Snipes Mountain Irrigation District	1,915
Prosser Irrigation District	2,155
Zillah Irrigation District	106

On March 1, 1945, management of the Sunnyside division was transferred to a board of control, made up of 12 members representing the irrigation districts and operating units.

The division's share of reserved works O&M charges is paid to the Bureau on January 1 of the current year by the Sunnyside Board of Control that represents the seven major districts of the division.

On June 19, 1952, the Sunnyside Valley Irrigation District made final payment of \$21,298.91, thereby paying off its original construction obligation to the Government totaling \$2,270,050.23. The Sunnyside Irrigation District's original construction obligation of \$356,669.34 was completely repaid upon receipt of final payment in the amount of \$8,771.35 on May 6, 1958.

A contract debt of \$4,181,174 has been assumed by water users for original construction of the Sunnyside division. Repayments began in 1908.

A joint drainage program encompassing the Sunnyside division and Roza division as described in the report entitled "Drainage Outlet Plan, Lower Yakima Valley, May 1956" was begun in 1958 and basically completed in 1963. This program consisted generally of constructing 19 outlet drain channels totaling about 44 miles and rehabilitation of about 31 miles on 6 existing drain channels. The Sunnyside division's share of the estimated cost is \$349,200 and is covered for repayment by repayment contracts dated May 15, 1958, with the following Irrigation Districts: Grandview, Prosser, Sunnyside, Granger, Outlook, Snipes Mountain, and Sunnyside Valley. The actual cost was \$234,828.

Rehabilitation and betterment.—Rehabilitation and betterment of discharge lines, siphons, and Spring Creek pumping plant for the Prosser Irrigation District has been completed at a cost of \$98,036. Repayment is covered by a \$100,000 provision in the District's

contract, and is combined with the District's regular construction obligation. Additional rehabilitation and betterment work at the Prosser pumping plant and Spring Creek pumping plant at an estimated cost of \$346,000 is covered by a repayment contract dated August 8, 1961, and will be repaid by extension of annual installments due under contract of November 25, 1949. Actual cost was \$345,549.

Rehabilitation and betterment work to the Sunnyside Irrigation District distribution system is being performed under a repayment contract dated June 18, 1962, at a total estimated cost of \$517,000. Actual cost was \$511,171. Repayment will be in about 41 years.

Rehabilitation and betterment work of Outlook Irrigation District pumping plant, lateral, and drainage systems is being performed under repayment contract dated November 15, 1966, at an estimated cost of \$716,000. Repayment will be in 55 years, beginning in fiscal year 1971.

PUBLIC NOTICES AND CONTRACTS

- 1908, November 18: Public notice. Construction charge \$52 per acre, payable in 10 equal annual installments.
- 1914, October 16: Warren Act contract I1r-458 with Sunnyside Irrigation District for \$240,760 as share of project works plus additional costs, repayable in fixed amounts. Payment secured from the District by issuance and retirement of bonds deposited with the United States.
- 1914, November 16; 1917, April 4; 1926, June 11; 1932, September 26: Contract I1r-15 with Snipes Mountain Irrigation District for construction of pumping plant and for water supply, repayment in 40 years from 1916.
- 1914, November 23; 1916, August 1; 1919, July 1; 1932, December 20: Contract I23r-15 with Outlook Irrigation District for construction of pumping plant and for water supply, repayment in 40 years from 1917.
- 1916, August 4; 1927, May 2; 1932, July 5: Contract I1r-160 with Grandview Irrigation District for construction of pumping plant and for furnishing water supply, repayment in 40 years from 1917.
- 1917, December 1; 1919, February 27; 1922, November 7; 1932, January 1: Contracts with Prosser Irrigation District for construction of pumping plant and for water supply, repayment in 40 years from 1919.
- 1918, May 6: Public notice. Construction charge \$52 and \$75 per acre, payable in 20 graduated annual installments.
- 1922, September 29: Contract I1r-464 with Zillah Irrigation District providing water right for 108.12 acres at cost of \$6,836.50, repayable under fixed graduated annual installments.
- 1922, November 20, and 1932, June 7: Contracts I1r-455 with Granger Irrigation District for construction of pumping plant and for furnishing water supply, repayment in 40 years from 1924.
- 1942, December 28, and 1949, August 2: Contract I1r-1395 with Sunnyside Irrigation District. Assessments deter-

mined under normal and percentage procedure of 1939 act, including ceiling of 175 percent of base rate.

- 1949, November 25: Amendatory contract I1r-1551 with Prosser Irrigation District for rehabilitation and betterment of District's canal and distribution system, plus previous unpaid obligation. Base rate is \$6,770 annually. Reaffirms operation under Sunnyside Board of Control.

- 1958, May 15: Drainage contracts:

No. 14-06-100-1468 Grandview Irrigation District
No. 14-06-100-1469 Prosser Irrigation District
No. 14-06-100-1470 Sunnyside Irrigation District
No. 14-06-100-1471 Granger Irrigation District
No. 14-06-100-1472 Outlook Irrigation District
No. 14-06-100-1473 Snipes Mountain Irrigation District
No. 14-06-100-1474 Sunnyside Valley Irrigation District

Drainage obligation of all districts totaling \$349,200 will be repaid in 15 years by each District. Installments are due December 31 and initial installment for each District varies from 1962 to 1980.

- 1961, August 8: Contract 14-06-100-2217 with Prosser Irrigation District for rehabilitation and betterment work to pumping plants. Total estimated obligation is \$346,000. Annual installments due one-half June 15 and one-half December 15 of year following year installment accrues.
- 1962, June 18: Contract 14-06-100-2471 with Sunnyside Irrigation District for rehabilitation and betterment of the District's distribution system. Estimated cost of \$517,000 will be repaid in about 41 years, beginning in 1966. Installments are due December 31.
- 1965, January 11: Actual cost notices of joint drainage work under May 15, 1958, contracts to following districts:
- | | |
|--|------------|
| Grandview Irrigation District | \$9,651.43 |
| Granger Irrigation District | 3,921.63 |
| Outlook Irrigation District | 11,623.99 |
| Snipes Mountain Irrigation District | 4,696.56 |
| Sunnyside Irrigation District..... | 11,342.19 |
| Sunnyside Valley Irrigation District | 188,308.57 |
- 1966, November 15: Contract 14-06-100-5711 with Outlook Irrigation District for rehabilitation and betterment of pumping plant, lateral and drainage systems. Estimated cost of \$716,000 to be repaid in 55 years. First annual installment due December 31, 1970.
- 1968, May 27: Actual cost notice of joint drainage work under May 15, 1958, contract to Prosser Irrigation District, \$5,283.63.
- 1968, May 27: Actual cost notice of rehabilitation and betterment of pumping plants and laterals under August 8, 1961, contract to Prosser Irrigation District. Actual cost \$345,548.56.
- 1968, May 27: Actual cost notice of rehabilitation and betterment of distribution system under June 18, 1962, contract to Benton Irrigation District (formerly Sunnyside Irrigation District). Actual cost \$511,171.

Summary of status of Sunnyside division repayment contracts:

Total value of repayment contracts	\$5,980,832
Total matured charges	4,211,886
Total matured charges repaid	4,211,886
Total matured charges unpaid	0

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—SUNNYSIDE DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1908		\$13,176		\$13,176	\$13,176		\$13,176	\$13,176
1909		49,904		49,904	49,281	\$623	49,904	63,080
1910		159,962		159,962	92,315		92,315	155,395
1911		167,093		167,093	89,528		89,528	244,923
1912		106,711		106,711			142,804	387,727
1913		186,655		186,655			118,634	506,361
1914		132,823		132,823			84,542	590,903
1915	\$1,625,123			122,918			42,375	633,278
1916	1,733,376			15,646			45,951	679,229
1917	3,057,728			49,115			45,760	724,989
1918	3,211,954			72,465			84,856	809,845
1919	3,481,892			83,676	1,537,012		83,273	893,118
1920	3,755,314	1,092,688		90,416			97,177	990,295
1921	3,753,482			141,358			106,730	1,097,025
1922	3,736,590			147,215			129,153	1,226,178
1923	3,757,861			161,138			139,250	1,365,428
1924	3,776,734			171,882			181,921	1,547,349
1925	4,023,331			169,336			59,409	1,606,758
1926	4,033,092			113,359			175,177	1,781,935
1927	4,034,471	142,265	¹ \$1,401	140,864	152,008	23,493	175,501	1,957,436
1928	4,032,897	147,315	² 5,654	141,661	73,316	71,353	144,669	2,102,105
1929	4,033,462	155,339	¹ 696	154,643	65,981	31,804	97,785	2,199,890
1930	4,045,117	165,077	177	165,254	137,718	71,845	209,563	2,409,453
1931	4,047,995	168,220		168,220	85,437	83,093	168,530	2,577,983
1932	4,073,412	² 142,828	¹ 2,641	140,187	48,856	7,840	56,696	2,634,679
1933	4,117,857	² 68,643	¹ 153,450	¹ 84,807	10,502	2,674	13,176	2,647,855
1934	4,138,507	² 19,084	¹ 90,294	¹ 71,210	18,180	¹ 3,818	14,362	2,662,217
1935	4,144,572	² 22,989	¹ 53	22,936	16,172	31	16,203	2,678,420
1936	4,141,523	² 11,000	¹ 1,593	9,407	15,006	¹ 405	14,601	2,693,021
1937	4,137,668	³ 74,025		74,025	39,832	2,930	42,762	2,735,783
1938	4,138,781	³ 108,405		108,405	38,030	39,670	77,700	2,813,483
1939	4,139,000	³ 143,785		143,785	49,763	53,239	103,002	2,916,485
1940	4,139,091	³ 99,718		99,718	47,617	65,572	113,189	3,029,674
1941	4,138,821	³ 57,149		57,149	51,663	37,016	88,679	3,118,353
1942	4,138,952	³ 63,641		63,641	53,262	19,963	73,225	3,191,578
1943	4,138,993	56,390		56,390	53,820	17,938	71,758	3,263,336
1944	4,137,087	57,330		57,330	52,260	9,357	61,617	3,324,953
1945	4,075,398	33,764		33,764	19,232	25,944	45,176	3,370,129
1946	4,075,398	55,195		55,195	32,868	15,713	48,581	3,418,710
1947	4,070,225	60,156	¹ 5,173	54,983	66,470	¹ 512	65,958	3,484,668
1948	4,070,225	58,081	¹ 3,466	54,615	52,014		52,014	3,536,682
1949	4,070,225	41,792		41,792	48,096		48,096	3,584,778
1950	4,188,970	41,195	¹ 864	40,331	48,147	¹ 683	47,464	3,632,242
1951	4,188,970	37,248		37,248	40,849		40,849	3,673,091
1952	4,188,970	61,434		61,434	62,881		62,881	3,735,972
1953	4,188,970	42,398		42,398	42,398		42,398	3,778,370
1954	4,187,005	38,207		38,207	38,207		38,207	3,816,577
1955	4,187,005	42,914		42,914	42,914		42,914	3,859,491
1956	4,184,933	36,301		36,301	36,301		36,301	3,895,792
1957	4,184,933	24,499		24,499	24,499		24,499	3,920,291
1958	4,184,933	32,385		32,385	32,385		32,385	3,952,676
1959	4,184,933	21,724		21,724	18,040		18,040	3,970,716
1960	⁴ 4,534,133	14,208		14,208	14,208	3,684	17,892	3,988,608
1961	4,530,374	13,441		13,441	9,988		9,988	3,998,596
1962	⁵ 5,393,374	12,773		12,773	12,773	3,453	16,226	4,014,822
1963	5,393,374	26,229		26,229	26,229		26,229	4,041,051
1964	5,393,374	26,103		26,103	26,103		26,103	4,067,154
1965	⁶ 5,271,113	25,749		25,749	22,402		22,402	4,089,556
1966	5,271,113	29,465		29,465	32,812		32,812	4,122,368
1967	⁷ 5,987,113	30,342		30,342	30,342		30,342	4,152,710
1968	⁸ 5,980,832	29,356		29,356	29,356		29,356	4,182,066
1969	5,980,832	29,820		29,820	29,820		29,820	4,211,886
Total		4,476,994	-265,108	4,211,886	3,630,069	581,817	4,211,886	

¹ Decrease. Decreases cover funding of delinquent charges, deferments under relief acts, and cancellations of water-right applications. 1915—Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period. Acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934, June 13, 1935, and Apr. 14, 1936. Construction charges deferred for calendar years 1930, \$49,425; 1931, \$87,501; 1932, \$117,481; 1933, \$123,473; 1934, \$61,389; 1935, \$46,586; 1936, \$28,332.

³ Construction charges deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939, for calendar years 1937, \$7,598; 1938, \$7,598; 1939,

\$19,125; 1940, \$11,737; and 1941, \$2,000.

⁴ Increase includes joint drainage obligation.

⁵ Increase includes R&B of Prosser Irrigation District pumping plants and Sunnyside Irrigation District distribution system.

⁶ Decrease reflects actual cost of joint drainage obligation.

⁷ Increase includes R&B cost of Outlook Irrigation District pumping plants, laterals, and drains.

⁸ Decrease reflects actual R&B cost of Prosser Irrigation District pumping plants and actual R&B cost of Benton Irrigation District distribution system.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—SUNNYSIDE DIVISION

Fiscal year	Accruals	Collections
1909	\$3,572	\$3,572
1910	19,805	12,656
1911	252,706	223,360
1912	50,191	74,670
1913	69,721	37,414
1914	66,925	90,475
1915	45,054	34,741
1916	69,883	66,408
1917	84,324	80,670
1918	80,905	89,981
1919	112,847	120,542
1920	134,255	145,214
1921	147,936	101,509
1922	152,941	153,441
1923	149,807	138,902
1924	150,973	148,050
1925	147,577	97,512
1926	152,324	170,796
1927	142,187	160,625
1928	137,407	144,866
1929	133,504	99,661
1930	135,283	185,275
1931	133,958	127,171
1932	130,727	91,248
1933	108,511	85,255
1934	101,308	160,276
1935	102,041	117,933
1936	110,940	111,332
1937	117,504	121,879
1938	121,249	113,744
1939	121,401	117,426
1940	131,223	123,121
1941	130,579	132,535
1942	136,396	136,007
1943	141,589	156,244
1944	130,526	140,069
1945	130,571	142,821
1946	38,174	59,618
1947	14,800	24,605
1948	12,834	12,834
1949	10,637	10,637
1950	14,807	14,807
1951	13,262	13,262
1952	15,786	15,786
1953	14,301	14,301
1954	12,968	12,968
1955	13,322	13,322
1956	15,160	15,160
1957	15,154	15,154
1958	17,926	17,926
1959	16,301	16,301
1960	7,870	7,870
1961	11,395	11,395
1962	11,016	11,016
1963	11,830	11,830
1964	17,630	17,630
1965	16,232	16,232
1966	10,787	10,787
1967	17,828	17,828
1968	18,945	18,945
1969	22,369	22,369
Total	4,659,984	4,659,984

TIETON DIVISION

Construction of the Tieton division was authorized by the Secretary of the Interior on December 12, 1905, and construction commenced in 1906. The total construction cost of Tieton division is \$3,743,144. Water was first delivered to farms in 1910. Water is diverted from the Tieton River and is carried in a semicircular, concrete flume a distance of 12 miles. A distribution system of canals, flumes, and pipelines supplies irrigation water to 27,271 acres. This is one of the leading apple-producing districts of the Nation.

The water-users management and operating organization is the Yakima-Tieton Irrigation District. The District pays its pro rata share of the cost of operation and maintenance of the storage system to the Bureau on December 1 and June 1.

Repayment contracts.—Final payment on the District's original principal construction obligation of \$3,449,114 was made in February 1947. On March 1, 1947, operation and maintenance responsibility was officially transferred from the Bureau of Reclamation to the Yakima-Tieton Irrigation District.

Rehabilitation and betterment work to the distribution system was performed during the years 1959 to 1962. Repayment contract of February 16, 1959, provided for a maximum cost of \$500,000; however, the actual cost was \$341,907.

PUBLIC NOTICES AND CONTRACTS

- 1910, November 7: Public notice. Construction charge \$93 per acre, payable in 10 equal annual installments.
- 1918, July 18, and 1936, January 11: Contracts with Yakima-Tieton Irrigation District for supplemental construction work. Cost \$372,057, payable in 8 equal semiannual installments beginning with year 1940.
- 1920, July 29: Public notice. Construction charge \$110 per acre, payable in 20 graduated installments.
- 1929, October 27: Contract with Tieton Water Users' Association for purchase of water appurtenant to cancelled water-right applications. Cost \$65,901, payable in 40 graduated semiannual installments beginning with year 1930.
- 1945, January 6: Contract provides for purchase of 12,000 acre-feet of additional storage and natural flow during April, May, and June, and 6,000 acre-feet during July, August, September, and October at an approximate cost of \$135,000 repayable in 20 semiannual installments on January 1 and July 1 each year beginning July 1, 1946.
- 1946, January 3: Contract provides that District assume liability for and pay the uncollected accrued construction, operation and maintenance charges up to and including 1946 with penalties and interest and the unaccrued balance owing for construction charges. Included were construction charges on 3,032 acres of class 5 land in order that the water be retained. Maximum obligation \$25,000

REPAYMENT OF RECLAMATION PROJECTS

payable in 2 equal installments beginning July 1, 1977.

1946, November 20: Contract provides that the District act as fiscal agent in collecting operation and maintenance charges from water users.

1947, February 5: Supplemental contract provides that upon payment of \$19,630.98, the District assume operation and maintenance effective March 1, 1947.

1959, February 16: Rehabilitation contract 14-06-100-1753 with Yakima-Tieton Irrigation District. Maximum obligation of \$500,000, payable in 10 years beginning June 30, 1962. Annual installments due June 30 thereafter.

1968, May 31: Actual cost notice of rehabilitation and better-

ment work to Tieton Irrigation District distribution system under February 16, 1959, contract. Actual cost was \$341,907, less \$12,076.13 investigations funds advanced by District for a net repayable cost of \$329,830.87.

Summary of status of Tieton division repayment contracts:

Total value of contracted repayment	\$3,778,945
Total matured charges	3,713,890
Total matured charges repaid	3,713,890
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—TIETON DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1911		\$180,217		\$180,217	\$4,250		\$4,250	\$4,250
1912		53,726		53,726			76,912	81,162
1913		49,387		49,387	58,035	\$26,507	84,542	165,704
1914		129,653		129,653			22,603	188,307
1915	\$2,577,681			¹ 173,298			35,548	223,855
1916	2,716,638			46,300			43,588	267,443
1917	2,833,896			53,342			55,288	322,731
1918	2,893,970			52,190			50,968	373,699
1919	2,917,495			91,973			87,376	461,075
1920	2,944,445	961,475		100,400	1,145,190		104,965	566,040
1921	3,005,719			146,572			115,443	681,483
1922	3,060,747			154,093			140,978	822,461
1923	3,434,079			161,578			138,555	961,016
1924	3,434,322			163,123			123,261	1,084,277
1925	3,434,541			165,202			149,705	1,233,982
1926	3,434,541	167,994		167,994	98,459	77,723	176,182	1,410,164
1927	3,434,761	170,382	¹ \$1,079	169,303	75,203	76,006	151,209	1,561,373
1928	3,384,384	169,379	¹ 26,630	142,749	82,723	112,903	195,626	1,756,999
1929	3,384,384	170,227		170,227	84,203	92,781	176,984	1,933,983
1930	3,442,728	169,846	¹ 3,518	166,328	81,999	84,111	166,110	2,100,093
1931	3,442,728	170,875	¹ 660	170,215	73,248	88,125	161,373	2,261,466
1932	3,442,728	² 171,444		171,444	36,816	19,930	56,746	2,318,212
1933	3,447,904	³ 100,187	¹ 217,727	¹ 117,540	25,400	¹ 8,473	16,927	2,335,139
1934	3,442,770	² 20,236	¹ 87,612	¹ 67,376	11,902	¹ 12,540	¹ 638	2,334,501
1935	3,481,053	² 9,604	¹ 2,982	6,622	8,959	9,167	18,126	2,352,627
1936	3,481,076	² 12,023	¹ 2,521	9,502	12,024	¹ 1,909	10,115	2,362,742
1937	3,466,111	² 99,830	¹ 1,921	97,909	51,208	¹ 858	50,350	2,413,092
1938	3,466,052	³ 161,377		161,377	45,616	42,788	88,404	2,501,496
1939	3,466,052	³ 157,491		157,491	41,037	34,988	76,025	2,577,521
1940	3,466,052	³ 155,244	¹ 128,264	26,980	27,596	70,828	98,424	2,675,945
1941	3,466,052	³ 162,082	¹ 49,941	112,141	35,262	77,011	112,273	2,788,218
1942	3,466,052	³ 152,292	¹ 48,838	103,454	53,093	78,510	131,603	2,919,821
1943	3,466,052	161,069		161,069	146,909	101,073	247,982	3,167,803
1944	3,466,052	170,978		170,978	167,784	15,018	182,802	3,350,605
1945	3,466,052	71,715		71,715	69,529	4,202	73,731	3,424,336
1946	3,466,052	16,231		16,231	12,775	2,091	14,866	3,439,202
1947	3,449,114	11,982	¹ 6,139	5,843	13,959	¹ 4,047	9,912	3,449,114
Total		4,026,946	-577,832	3,449,114	2,463,179	985,935	3,449,114	

¹ Decrease. Decreases cover delinquent charges funded, charges deferred under relief acts, and cancellation of water-right applications. 1915—Reclamation Extension Act, Aug. 13, 1914.

² Moratorium period, acts of Apr. 1, 1932, Mar. 3, 1933, Mar. 27, 1934,

June 13, 1935, and Apr. 14, 1936. Total amount deferred for calendar years 1931 to 1936, \$613,254.

³ Construction charges deferred under acts of Aug. 21, 1937, May 31, 1939, and Aug. 4, 1939, calendar years 1937, \$5,329; 1938, \$3,010; 1939, \$46; 1940, \$93,014; and 1941, \$93,014.

REHABILITATION AND BETTERMENT REPAYMENT HISTORY—TETON DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Adjustments	Total	Cumulative total
1962-----	\$500,000	\$33,178	-----	\$33,178	\$33,178	-----	\$33,178	\$33,178
1963-----	500,000	33,178	-----	33,178	33,178	-----	33,178	66,356
1964-----	500,000	33,179	-----	33,179	33,179	-----	33,179	99,535
1965-----	500,000	33,178	-----	33,178	33,178	-----	33,178	132,713
1966-----	500,000	33,178	-----	33,178	33,178	-----	33,178	165,891
1967-----	500,000	33,179	-----	33,179	33,179	-----	33,179	199,070
1968-----	¹ 329,831	33,178	-----	33,178	33,178	-----	33,178	232,248
1969-----	329,831	32,528	-----	32,528	32,528	-----	32,528	264,776
Total--	-----	264,776	-----	264,776	264,776	-----	264,776	-----

¹ Decreased to actual repayable cost.

Fiscal year	Net operating revenues	POWER—KENNEWICK DIVISION							Earned surplus, cumulative
		Repayment components of net power revenues			Investment repayment from power revenues				
		Interest 2½ percent	1/5 of interest applied to irrigation	Principal	Interest bearing allocation to commercial electric plant		Interest free aid to irrigation plant		
					In service at end of year	Balance to be repaid	Required aid	Balance to be repaid	
1963.....	253,153	71,764	14,353	181,389	3,512,053	2,820,817	5,183,438	5,069,302	0
1964.....	132,314	70,520	12,201	61,794	3,517,116	2,764,086	5,264,172	5,137,835	0
1965.....	100,758	69,102	13,820	31,656	3,511,951	2,727,265	5,275,402	5,135,245	0
1966.....	82,326	68,182	13,636	14,144	3,512,374	2,713,544	5,248,992	5,095,199	0
1967.....	81,909	67,839	13,568	14,070	3,513,157	2,700,257	5,294,795	5,127,434	0
1968.....	479,899	67,506	13,501	412,393	3,542,914	2,736,483	5,692,015	5,092,291	0
1969.....	87,813	68,412	13,682	19,401	3,543,804	2,717,972	5,692,015	5,078,610	0
Adjustments—Prior years.....	(9,515)	(9,515)							
Subtotal.....	2,217,423	972,729	194,544	1,244,694	3,543,804	2,717,972	5,692,015	5,078,610	0
1970.....	63,800	67,949	13,590	(4,149)	3,555,804	2,734,121	5,692,015	5,065,020	0
1971.....	52,800	68,353	13,671	(15,553)	3,555,804	2,749,674	5,692,015	5,051,349	0
1972.....	95,988	68,742	13,748	27,246	3,555,804	2,722,428	5,692,015	5,037,601	0
1973.....	95,988	68,061	13,612	27,927	3,555,804	2,694,501	5,692,015	5,023,989	0
1974.....	95,988	67,363	13,473	28,625	3,555,804	2,665,876	5,692,015	5,010,516	0
1975.....	95,988	66,647	13,329	29,341	3,555,804	2,636,535	5,692,015	4,997,187	0
1976.....	95,988	65,913	13,183	30,075	3,555,804	2,606,460	5,692,015	4,984,004	0
1977.....	95,988	65,162	13,032	30,826	3,555,804	2,575,634	5,692,015	4,970,972	0
1978.....	95,988	64,391	12,878	31,597	3,555,804	2,544,037	5,692,015	4,958,094	0
1979.....	95,988	63,601	12,720	32,387	3,555,804	2,511,650	5,692,015	4,945,374	0
1980.....	95,988	62,791	12,558	33,197	3,555,804	2,478,453	5,692,015	4,932,816	0
1981.....	95,988	61,961	12,392	34,027	3,555,804	2,444,426	5,692,015	4,920,424	0
1982.....	95,988	61,111	12,222	34,877	3,555,804	2,409,549	5,692,015	4,908,202	0
1983.....	95,988	60,239	12,048	35,749	3,555,804	2,373,800	5,692,015	4,896,154	0
1984.....	95,988	59,345	11,869	36,643	3,555,804	2,337,157	5,692,015	4,884,285	0
1985.....	95,988	58,429	11,686	37,559	3,555,804	2,299,598	5,692,015	4,872,599	0
1986.....	95,988	57,490	11,498	38,498	3,555,804	2,261,100	5,692,015	4,861,101	0
1987.....	95,988	56,528	11,306	39,460	3,555,804	2,221,640	5,692,015	4,849,795	0
1988.....	95,988	55,541	11,108	40,447	3,555,804	2,181,193	5,692,015	4,838,687	0
1989.....	95,988	54,530	10,906	41,458	3,555,804	2,139,735	5,692,015	4,827,781	0
1990.....	95,988	53,493	10,699	42,495	3,555,804	2,097,240	5,692,015	4,817,082	0
1991.....	95,988	52,431	10,486	43,557	3,555,804	2,053,683	5,692,015	4,806,596	0
1992.....	95,988	51,342	10,268	44,646	3,555,804	2,009,037	5,692,015	4,796,328	0
1993.....	95,988	50,226	10,045	45,762	3,555,804	1,963,275	5,692,015	4,786,283	0
1994.....	95,988	49,082	9,816	46,906	3,555,804	1,916,369	5,692,015	4,776,467	0
1995.....	95,988	47,909	9,582	48,079	3,555,804	1,868,290	5,692,015	4,766,885	0
1996.....	95,988	46,707	9,341	49,281	3,555,804	1,819,009	5,692,015	4,757,544	0
1997.....	95,988	45,475	9,095	50,513	3,555,804	1,768,496	5,692,015	4,748,449	0
1998.....	95,988	44,212	8,842	51,776	3,555,804	1,716,720	5,692,015	4,739,607	0
1999.....	95,988	42,918	8,584	53,070	3,555,804	1,663,650	5,692,015	4,731,023	0
2000.....	95,988	41,591	8,318	54,397	3,555,804	1,609,253	5,692,015	4,722,705	0
2001.....	95,988	40,231	8,046	55,757	3,555,804	1,553,496	5,692,015	4,714,659	0
2002.....	95,988	38,837	7,767	57,151	3,555,804	1,496,345	5,692,015	4,706,892	0
2003.....	95,988	37,409	7,482	58,579	3,555,804	1,437,766	5,692,015	4,699,410	0
2004.....	95,988	35,944	7,189	60,044	3,555,804	1,377,722	5,692,015	4,692,221	0
2005.....	95,988	34,443	6,889	61,545	3,555,804	1,316,177	5,692,015	4,685,332	0
2006.....	95,988	32,904	6,581	63,084	3,555,804	1,253,093	5,692,015	4,678,751	0
2007.....	95,988	31,327	6,265	64,661	3,555,804	1,188,432	5,692,015	4,672,486	0
2008.....	95,988	29,711	5,942	66,277	3,555,804	1,122,155	5,692,015	4,666,544	0
2009.....	95,988	28,054	5,611	67,934	3,555,804	1,054,221	5,692,015	4,660,933	0
2010.....	95,988	26,356	5,271	69,632	3,555,804	984,589	5,692,015	4,655,662	0
2011.....	95,988	24,615	4,923	71,373	3,555,804	913,216	5,692,015	4,650,739	0
2012.....	95,988	22,830	4,566	73,158	3,555,804	840,058	5,692,015	4,646,173	0
2013.....	95,988	21,001	4,200	74,987	3,555,804	765,071	5,692,015	4,641,973	0
2014.....	95,988	19,127	3,825	76,861	3,555,804	688,210	5,692,015	4,638,148	0
2015.....	95,988	17,205	3,441	78,783	3,555,804	609,427	5,692,015	4,634,707	0
2016.....	95,988	15,236	3,047	80,752	3,555,804	528,675	5,692,015	4,631,660	0
2017.....	95,988	13,217	2,643	82,771	3,555,804	445,904	5,692,015	4,629,017	0
2018.....	95,988	11,148	2,230	84,810	3,555,804	361,064	5,692,015	4,626,787	0
2019.....	95,988	9,027	1,805	86,961	3,555,804	274,103	5,692,015	4,624,982	0
2020.....	95,988	6,853	1,371	89,135	3,555,804	184,968	5,692,015	4,623,611	0
2021.....	95,988	4,624	925	91,364	3,555,804	93,604	5,692,015	4,622,686	0
2022.....	95,988	2,340	468	93,648	3,555,804	0	5,692,015	4,622,174	0
2023.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2024.....	4,622,204	0	0	4,622,204	3,555,804	0	5,692,015	0	30
2025.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2026.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2027.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2028.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2029.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2030.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2031.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2032.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2033.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2034.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2035.....	0	0	0	0	3,555,804	0	5,692,015	0	30
2036.....	0	0	0	0	3,555,804	0	5,692,015	0	30
Total.....	11,851,615	3,254,701	650,936	8,596,914	3,555,804	0	5,692,015	0	30

YAKIMA PROJECT

POWER—ROZA DIVISION								IRRIGATION		
Net operating revenues	Repayment components of net power revenues		Investment repayment from power revenues				Earned surplus, cumulative	Net revenues from water users	Investment repayment	
	Interest 3 percent	Principal	Interest bearing allocation to commercial electric plant		Interest free aid to irrigation plant				Total obligation of water users to repay	Interest free balance to be repaid
			In service at end of year	Balance to be repaid	Required aid	Balance to be repaid				
181,436	16,910	164,526	1,021,872	542,331	4,013,292	4,613,292	0	451,870	48,845,875	32,385,401
181,363	16,270	165,093	1,082,310	437,676	4,565,131	4,565,131	0	494,682	48,845,875	31,890,722
100,365	13,130	87,235	1,083,563	351,694	4,570,389	4,570,389	0	505,561	48,723,614	31,262,909
140,209	10,551	129,658	1,032,781	171,254	4,622,845	4,622,845	0	521,653	48,723,614	30,741,226
57,431	5,138	52,293	1,033,866	120,046	4,627,186	4,627,186	0	537,167	49,439,594	30,920,060
16,876	3,601	13,275	1,036,169	109,074	4,629,759	4,629,759	0	546,888	49,263,144	30,196,722
29,885	3,272	26,613	1,013,536	59,828	4,668,420	4,668,420	0	630,775	49,263,144	29,565,941
(5,847)	(5,847)									
1,083,904	130,196	953,708	1,013,536	59,828	4,668,420	4,668,420	0	19,697,197	49,263,144	29,565,941
30,550	1,795	28,755	1,021,809	39,346	4,701,512	4,701,512	0	566,323	49,263,144	28,999,621
19,750	1,180	18,570	1,021,809	20,776	4,701,512	4,701,512	0	621,936	49,263,144	28,377,681
924	623	301	1,021,809	20,475	4,701,512	4,701,512	0	571,149	49,263,144	27,806,539
924	614	310	1,021,809	20,165	4,701,512	4,701,512	0	558,850	49,263,144	27,247,681
924	605	319	1,021,809	19,846	4,701,512	4,701,512	0	557,396	49,263,144	26,690,293
924	595	329	1,021,809	19,517	4,701,512	4,701,512	0	555,941	49,263,144	26,134,353
924	586	338	1,021,809	19,179	4,701,512	4,701,512	0	555,941	49,263,144	25,578,413
924	575	349	1,021,809	18,830	4,701,512	4,701,512	0	555,941	49,263,144	25,022,473
924	565	359	1,021,809	18,471	4,701,512	4,701,512	0	543,907	49,263,144	24,478,563
924	554	370	1,021,809	18,101	4,701,512	4,701,512	0	543,907	49,263,144	23,934,653
924	543	381	1,021,809	17,720	4,701,512	4,701,512	0	543,908	49,263,144	23,390,743
924	532	392	1,021,809	17,328	4,701,512	4,701,512	0	543,564	49,263,144	22,847,183
924	520	404	1,021,809	16,924	4,701,512	4,701,512	0	544,159	49,263,144	22,303,023
924	508	416	1,021,809	16,508	4,701,512	4,701,512	0	544,159	49,263,144	21,758,863
924	495	429	1,021,809	16,079	4,701,512	4,701,512	0	544,160	49,263,144	21,214,703
924	482	442	1,021,809	15,637	4,701,512	4,701,512	0	544,160	49,263,144	20,670,543
924	469	455	1,021,809	15,182	4,791,512	4,701,512	0	543,522	49,263,144	20,127,023
924	455	469	1,021,809	14,713	4,701,512	4,701,512	0	543,522	49,263,144	19,583,503
924	441	483	1,021,809	14,230	4,701,512	4,701,512	0	543,522	49,263,144	19,039,983
924	427	497	1,021,809	13,733	4,701,512	4,701,512	0	543,522	49,263,144	18,496,463
924	412	512	1,021,809	13,221	4,701,512	4,701,512	0	543,522	49,263,144	17,952,943
924	397	527	1,021,809	12,694	4,701,512	4,701,512	0	543,522	49,263,144	17,409,413
924	381	543	1,021,809	12,151	4,701,512	4,701,512	0	543,522	49,263,144	16,865,893
924	365	559	1,021,809	11,592	4,701,512	4,701,512	0	543,522	49,263,144	16,322,373
924	348	576	1,021,809	11,016	4,701,512	4,701,512	0	543,522	49,263,144	15,778,843
924	330	594	1,021,809	10,422	4,701,512	4,701,512	0	543,522	49,263,144	15,235,323
924	313	611	1,021,809	9,811	4,701,512	4,701,512	0	543,269	49,263,144	14,692,053
924	294	630	1,021,809	9,181	4,701,512	4,701,512	0	543,269	49,263,144	14,148,783
924	275	649	1,021,809	8,532	4,701,512	4,701,512	0	543,269	49,263,144	13,605,513
924	256	668	1,021,809	7,864	4,701,512	4,701,512	0	543,269	49,263,144	13,062,253
924	236	688	1,021,809	7,176	4,701,512	4,701,512	0	543,269	49,263,144	12,518,983
924	215	709	1,021,809	6,467	4,701,512	4,701,512	0	543,269	49,263,144	11,975,713
924	194	730	1,021,809	5,737	4,701,512	4,701,512	0	543,269	49,263,144	11,432,443
924	172	752	1,021,809	4,985	4,701,512	4,701,512	0	526,670	49,263,144	10,905,773
924	150	774	1,021,809	4,211	4,701,512	4,701,512	0	523,270	49,263,144	10,382,503
924	126	798	1,021,809	3,413	4,701,512	4,701,512	0	523,270	49,263,144	9,859,233
924	102	822	1,021,809	2,591	4,701,512	4,701,512	0	523,270	49,263,144	9,335,963
924	78	846	1,021,809	1,745	4,701,512	4,701,512	0	523,270	49,263,144	8,812,693
924	52	872	1,021,809	1,745	4,701,512	4,701,512	0	523,270	49,263,144	8,289,423
924	26	898	1,021,809	0	4,701,512	4,701,487	0	523,270	49,263,144	7,766,153
0	0	0	1,021,809	0	4,701,512	4,701,487	0	512,645	49,263,144	7,253,503
0	0	0	1,021,809	0	4,701,512	4,701,487	0	510,670	49,263,144	6,742,833
0	0	0	1,021,809	0	4,701,512	4,701,487	0	510,670	49,263,144	6,232,163
0	0	0	1,021,809	0	4,701,512	4,701,487	0	510,670	49,263,144	5,721,493
0	0	0	1,021,809	0	4,701,512	4,701,487	0	510,670	49,263,144	5,210,823
0	0	0	1,021,809	0	4,701,512	4,701,487	0	502,370	49,263,144	4,708,453
0	0	0	1,021,809	0	4,701,512	4,701,487	0	466,652	49,263,144	4,241,803
606,000	0	606,000	1,021,809	0	4,701,512	4,095,487	0	441,058	49,263,144	3,800,743
433,000	0	433,000	1,021,809	0	4,701,512	3,662,487	0	425,480	49,263,144	3,375,263
317,000	0	317,000	1,021,809	0	4,701,512	3,345,487	0	395,617	49,263,144	2,979,653
0	0	0	1,021,809	0	4,701,512	3,345,487	0	331,989	49,263,144	2,647,663
1,174,000	0	1,174,000	1,021,809	0	4,701,512	2,171,487	0	314,794	49,263,144	2,332,863
350,000	0	350,000	1,021,809	0	4,701,512	1,821,487	0	314,794	49,263,144	2,018,073
0	0	0	1,021,809	0	4,701,512	1,821,487	0	289,957	49,263,144	1,703,283
0	0	0	1,021,809	0	4,701,512	1,821,487	0	120,206	49,263,144	1,413,323
1,821,512	0	1,821,512	1,021,809	0	4,701,512	0	25	120,206	49,263,144	1,293,113
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	1,172,913
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	1,052,703
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	932,493
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	812,293
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	692,083
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	571,883
0	0	0	1,021,809	0	4,701,512	0	25	120,206	49,263,144	451,673
0	0	0	1,021,809	0	4,701,512	0	25	113,714	49,263,144	337,963
0	0	0	1,021,809	0	4,701,512	0	25	113,435	49,263,144	224,523
0	0	0	1,021,809	0	4,701,512	0	25	113,435	49,263,144	111,093
0	0	0	1,021,809	0	4,701,512	0	25	111,091	49,263,144	0
5,870,828	147,482	5,723,346	1,021,809	0	4,701,512	0	25	49,263,144	49,263,144	0

Fiscal year	POWER—KENNEWICK DIVISION								Earned surplus, cumulative
	Net operating revenues	Repayment components of net power revenues			Investment repayment from power revenues				
		Interest, 2½ percent	1/5 of interest applied to irrigation	Principal	Interest bearing allocation to commercial electric plant		Interest free aid to irrigation plant		
					In service at end of year	Balance to be repaid	Required aid	Balance to be repaid	
Through 1915									
1916									
1917									
1918									
1919									
1920									
1921									
1922									
1923									
1924									
1925									
1926									
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1946									
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1948									
1949									
1950									
1951									
1952									
1953									
1954									
1955									
1956	\$142,330			\$142,330	\$3,964,732	\$3,822,402	\$4,326,934	\$4,326,934	
1957	148,163	\$95,560	\$19,112	52,603	3,696,624	3,501,691	4,387,967	4,368,855	0
1958	134,975	87,542	17,508	47,433	3,493,999	3,251,633	4,491,824	4,455,204	0
1959	149,433	81,291	16,258	68,142	3,473,561	3,163,053	4,874,390	4,821,512	0
1960	149,966	79,076	15,815	70,890	3,524,230	3,142,832	5,065,437	4,996,744	0
1961	139,595	78,571	15,714	61,024	3,517,566	3,075,144	5,045,710	4,961,303	0
1962	144,304	76,879	15,376	67,425	3,513,519	2,003,672	5,187,782	5,087,999	0

YAKIMA PROJECT

POWER—ROZA DIVISION							IRRIGATION			
Net operating revenues	Repayment components of net power revenues		Investment repayment from power revenues				Earned surplus, cumulative	Net revenues from water users	Investment repayment	
	Interest, 3 percent	Principal	Interest bearing allocation to commercial electric plant		Interest free aid to irrigation plant				Total obligation of water users to repay	Interest free balance to be repaid
			In service at end of year	Balance to be repaid	Required aid	Balance to repaid				
								\$967,133	\$4,837,804	\$3,870,671
								190,799	5,085,014	3,927,082
								201,792	6,556,494	5,196,770
								238,101	6,773,126	5,175,301
								271,172	7,067,589	5,198,592
								303,976	7,366,761	5,193,788
								269,316	9,158,583	6,716,294
								323,970	9,201,269	6,435,010
								338,187	9,649,172	6,544,726
								360,577	9,668,268	6,203,245
								272,379	9,917,304	6,179,902
								439,664	20,620,365	16,443,299
								414,035	20,622,324	16,031,223
								444,716	20,570,373	15,534,556
								378,350	20,571,098	15,156,931
								481,608	20,652,461	14,756,686
								435,752	21,392,304	15,060,777
								194,960	21,435,291	14,908,804
								33,349	21,484,912	14,925,076
								17,364	21,504,607	14,927,407
								49,188	21,548,418	14,922,030
								51,726	24,045,122	17,367,008
								121,164	39,026,890	32,227,612
								259,475	39,677,944	32,619,191
								269,586	39,704,008	32,375,669
								338,824	39,694,099	32,026,936
								205,400	39,781,929	31,909,366
								288,055	39,932,060	31,771,442
								593,191	39,932,101	31,178,292
								449,552	39,930,195	30,726,834
								318,067	40,124,184	30,602,756
								350,787	39,953,087	30,080,872
								654,335	39,958,829	29,432,279
								358,529	39,991,725	29,106,646
								344,273	46,023,497	34,794,145
								349,496	46,123,492	34,544,644
								375,448	46,041,970	34,087,674
								374,124	46,041,970	33,713,550
								520,288	46,766,970	33,918,262
								395,947	51,568,969	38,324,314
								10,812	47,218,969	33,963,502
								339,939	47,216,896	33,621,490
								308,314	47,216,896	33,313,176
								523,060	47,566,096	33,139,316
								363,592	47,566,096	32,775,724
								356,585	48,066,096	32,919,139
								419,229	47,982,875	32,416,689
								442,415	48,845,875	32,837,274
\$102,319		\$102,319	\$773,469	\$671,150	\$4,672,455	\$4,762,455	0	563,592	47,566,096	32,775,724
89,141	\$20,135	69,006	987,689	816,364	4,537,232	4,537,232	0	356,585	48,066,096	32,919,139
71,605	24,491	47,114	969,950	751,511	4,537,860	4,537,860	0	419,229	47,982,875	32,416,689
119,121	22,545	96,576	964,347	649,332	4,543,966	4,543,966	0	442,415	48,845,875	32,837,274

REPAYMENT OF RECLAMATION PROJECTS

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—TETON DIVISION

Fiscal year	Accruals	Collections
1911	\$29,067	\$13,048
1912	8,666	23,281
1913	53,125	23,227
1914	41,596	63,756
1915	¹ 7,663	1,298
1916	40,727	25,653
1917	39,999	36,590
1918	50,857	46,362
1919	53,855	57,051
1920	60,953	66,099
1921	87,139	64,373
1922	106,331	92,033
1923	90,093	91,375
1924	89,277	72,547
1925	92,179	91,293
1926	76,762	85,467
1927	92,649	85,559
1928	82,300	107,737
1929	98,518	98,933
1930	100,932	99,384
1931	106,518	97,700
1932	89,614	73,453
1933	94,759	81,280
1934	67,936	105,146
1935	77,781	71,840
1936	86,269	82,724
1937	79,212	91,548
1938	79,151	69,918
1939	87,581	78,140
1940	88,505	94,776
1941	87,863	91,580
1942	74,709	91,086
1943	86,087	102,706
1944	84,606	91,026
1945	83,153	87,444
1946	84,108	74,127
1947	76,105	91,759
1948	32,655	32,655
1949	7,957	7,957
1950	8,995	8,995
1951	9,579	9,579
1952	6,405	6,405
1953	90	90
1954	6,180	6,180
1955	5,898	5,898
1956	6,065	6,065
1957	5,984	5,984
1958	6,362	6,362
1959	3,913	3,913
1960	7,449	7,449
1961	6,652	6,652
1962	6,791	6,791
1963	7,810	7,810
1964	10,541	10,541
1965	6,809	6,809
1966	8,540	8,540
1967	10,869	10,869
1968	10,489	10,489
1969	13,687	13,687
Total	2,911,039	2,911,039

¹ Decreases cover delinquent charges funded, charges deferred under relief acts, and cancellation of water-right applications.

YUMA PROJECT

ARIZONA-CALIFORNIA

Construction of the Yuma project in Imperial County, California, and Yuma County, Arizona, was authorized by the Secretary of the Interior on May 10, 1904, in accordance with the Reclamation Act of June 17, 1902 (32 Stat. 388). Original project features included the Laguna Dam, Yuma Main Canal, Colorado River siphon, distribution canals and laterals, and drainage systems.

It was proposed to irrigate by gravity flow 15,000 acres of agricultural lands in the Reservation division (Imperial County) and 50,000 acres in the Valley division (Yuma County). The area to be ultimately served in the Valley division is now estimated at 53,450 acres.

In 1969, the Reservation division had 14,670 irrigable acres for service, of which 11,669 were irrigated with a gross crop value of \$3,259,578 and an average per acre value of \$279.34. The Valley division had

53,208 acres for service, of which 44,852 acres were irrigated. The total crop value for this division was \$18,273,905 and the average per acre value was \$407.43.

Following is a tentative allocation of total estimated costs:

Feature:	Cost
Laguna Dam	\$2,190,206
Canals	2,049,162
Laterals	1,480,438
Drains	954,106
Farm units	29,482
General facilities	41,182
Powerplant	382,681
Switchyard	32,960
Transmission line	135,975
Abandoned irrigation facilities	116,741
Abandoned power facilities	59,127
Total cost	7,472,060

COST ALLOCATION AND REPAYMENT SUMMARY—YUMA PROJECT

	Total project	Reservation division	Valley division ¹	Cost assigned to other projects	
				Gila	Yuma Auxiliary
<i>Cost</i>					
Irrigation plant-----	\$6,617,554	\$1,002,013	\$3,714,408	\$361,469	\$1,539,664
Examinations and surveys-----	243,763	27,297	94,255	22,269	99,942
Electric plant-----	610,743	47,777	552,848	-----	10,118
Plant, property and equipment-----	7,472,060	1,077,087	4,361,511	383,738	1,649,724
O&M deficit funded ² -----	545,017	968	544,049	-----	-----
Interest and penalties funded-----	47,883	721	47,162	-----	-----
Total costs-----	8,064,960	1,078,776	4,952,722	383,738	1,649,724
Allocation:					
Irrigation-----	7,432,593	1,023,634	4,375,497	383,738	1,649,724
Power-----	632,367	55,142	577,225	-----	-----
Total-----	8,064,960	1,078,776	4,952,722	383,738	1,649,724
<i>Repayments</i>					
Repayments and other credits:					
Repayment contracts-----	5,359,809	1,000,312	4,359,497	-----	-----
Repayments from other sources-----	484,483	42,961	441,522	-----	-----
Contributions-----	1,896	407	1,489	-----	-----
Excess of income over expense-----	60,115	60,115	-----	-----	-----
Reserve for depreciation-----	14,239	-----	14,239	-----	-----
Total repayments-----	5,920,542	1,103,795	4,816,747	-----	-----
Other credits:					
Repayment reductions authorized-----	383,738	-----	-----	383,738	-----
Repayment obligation—Yuma Auxiliary-----	1,649,724	-----	-----	-----	1,649,724
Repayment obligation—Parker-Davis-----	135,975	-----	135,975	-----	-----
Total-----	8,089,979	1,103,795	4,952,722	383,738	1,649,724
Surplus-----	25,019	25,019	-----	-----	-----

¹ Includes general operation and maintenance service facilities.

² Includes \$341,092 water rentals during construction.

Laguna Dam.—The Laguna Dam and auxiliary works were constructed originally for the purpose of diverting water for the irrigation of approximately 126,000 acres of land in the Yuma project on the California and Arizona sides of the Colorado River. The cost of the dam structure and headworks is \$2,190,206 and was included in the original cost of \$7,442,060 for the Yuma project and in the public notices announcing the repayment obligation. These costs were allocated to the lands in the Reservation, Valley, Gila, and Mesa (Yuma Auxiliary project) divisions of the Yuma project.

Later it was planned that the All-American Canal, when built, would connect at Laguna Dam. Under date of October 23, 1918, a contract was entered into between the United States and the Imperial Irrigation District, which provided, among other things, for the diversion at Laguna Dam of all water needed by the District for the irrigation of its lands, and a main canal, entirely within the United States, for the carriage and transportation of such water for delivery to such

lands. For the right to use Laguna Dam, and the Main Canal (Yuma Main Canal), the District agreed to pay, and has paid, the United States \$1,600,000. In 1934, the Coachella Valley County Water District and the City of San Diego assumed a portion of the cost. Payments by the Imperial Irrigation District began in 1920. The total obligation of these contractors in the amount of \$1,608,640 has become due and has been paid in its entirety.

Because Laguna Dam is considered to be a necessary adjunct to Imperial Dam, under the provisions of article 21 of the 1932 Imperial Irrigation District contract, any agency that contracts with the United States for delivery of water through the All-American Canal is required to assume such proportion of the total cost (capital and operation and maintenance costs) of all jointly used works, including Laguna Dam, as the Secretary of the Interior may determine to be equitable and just.

Since the payments by the California interests constitute an overlap of charges accruing against the Yuma

project, the Yuma water users have been receiving credits (acts of June 28, 1926, 44 Stat. 776, and February 26, 1929, 45 Stat. 1321), on construction and operation and maintenance charges for the payments made by the Imperial Irrigation District, et al.

Summary of status of repayment contracts:

Total value of contracted repayment	\$1,608,640
Total matured charges	1,608,640
Total matured charges repaid	1,608,640
Total matured charges unpaid	0

The repayment obligation, consisting of construction cost, \$1,600,000, and penalties funded, \$8,640, was completed in 1946.

CONTRACTS

- 1918, October 23: Contract with Imperial Irrigation District to pay cost of Laguna Dam in the amount of \$1,600,000 in 20 graduated annual installments.
- 1934, October 15: Contract with Coachella Valley County Water District under which District assumes obligation to pay portion of debt of Imperial Irrigation District.
- 1934, October 2: Contract with the City of San Diego under which the city assumes obligation to pay portion of debt of Imperial Irrigation District.

CONSTRUCTION REPAYMENT HISTORY—LAGUNA DAM

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1920-----	\$1,600,000	\$32,000		\$32,000	\$32,000		\$32,000	\$32,000
1921-----	1,600,000	32,000		32,000	32,000		32,000	64,000
1922-----	1,600,000	32,000		32,000	32,000		32,000	96,000
1923-----	1,600,000	32,000		32,000	32,000		32,000	128,000
1924-----	1,600,000	64,000		64,000				128,000
1925-----	1,600,000	64,000		64,000	64,000	\$64,000	128,000	256,000
1926-----	1,600,000	96,000		96,000	96,000		96,000	352,000
1927-----	1,600,000	96,000		96,000	96,000		96,000	448,000
1928-----	1,600,000	96,000		96,000	96,000		96,000	544,000
1929-----	1,600,000	96,000		96,000	96,000		96,000	640,000
1930-----	1,600,000	96,000		96,000	96,000		96,000	736,000
1931-----	1,600,000	96,000		96,000	96,000		96,000	832,000
1932-----	1,600,000	(¹)					0	832,000
1933-----	1,600,000	48,000		48,000	48,000		48,000	880,000
1934-----	1,609,358	(¹)	² \$48,000	² 48,000		² 48,000	² 48,000	832,000
1935-----	1,617,280	(¹)						832,000
1936-----	1,608,640	(¹)						832,000
1937-----	1,608,640	¹ 48,000		48,000	48,000		48,000	880,000
1938-----	1,608,640	96,000		96,000	96,000		96,000	976,000
1939-----	1,608,640	96,000		96,000	96,000		96,000	1,072,000
1940-----	1,608,640	³ 12,440		12,440	1,165		1,165	1,073,165
1941-----	1,608,640	³ 1,165		1,165	1,165	11,275	12,440	1,085,605
1942-----	1,608,640	98,880		98,880	98,880		98,880	1,184,485
1943-----	1,608,640	96,000		96,000	96,000		96,000	1,280,485
1944-----	1,608,640	96,000		96,000	96,000		96,000	1,376,485
1945-----	1,608,640	59,275		59,275	59,275		59,275	1,435,760
1946-----	1,608,640	172,880		172,880	172,880		172,880	1,608,640
Total--		1,656,640	² 48,000	1,608,640	1,581,365	27,275	1,608,640	

¹ Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$96,000; 1932, \$96,000; 1933, \$96,000; 1934, \$96,000; 1935, \$96,000; and 1936, \$48,000.

² Decrease. Covers amount deferred under relief acts.

³ Construction charges deferred under act of Aug. 4, 1939, for year 1939, \$97,159; 1940, \$86,440.

GILA DIVISION

North Gila Valley.—The North Gila Valley is now a part of the Gila project, and for the most part is included in the North Gila Valley Irrigation District. Under terms of a contract executed on May 12, 1953, amended and supplemented by contract of June 24, 1954, the North Gila Valley Irrigation District assumed an obligation of \$108,300 of the former Gila division costs of the Yuma project, which costs have been transferred to Gila project accounts. The balance of \$383,738 of Gila division costs is nonreimbursable pursuant to the act of September 2, 1950 (64 Stat. 576).

RESERVATION DIVISION

Total construction costs for the Reservation division features, as of June 30, 1969, amounted to \$1,077,087, of which \$1,000,312 is repayable under water-right contracts. The Reservation division, located in California, comprises Indian lands and white ownerships in the Bard unit under individual water-right applications. The operation and maintenance of the division is performed by the United States with appropriated funds.

Repayment.—Annual construction charges are assessed and collected by the United States from individuals with water rights on the Reservation division. Construction charges, fixed by Public Notice No. 1, amounted to \$55 per acre, payable in 10 graduated annual installments. Public Notice No. 2 increased the construction charges to \$66 per acre, payable in 10 graduated annual installments. Public Notices No. 21 and 22 each announced an additional \$5 per acre supplemental construction charge for the power system and flood protection works, increasing the construction charge to \$76 per acre. Public Notices No. 65 and 66,

issued under authority of act of October 25, 1949 (63 Stat. 903), canceled the accrued increased charges under Reclamation Extension Act of 1914 (38 Stat. 686), and fixed the construction charge at \$76 per acre where applications were made by, or before, September 4, 1952. After that date an increase of 5 percent per year is added as provided in the Reclamation Extension Act. Payout is scheduled for completion in 1978.

PUBLIC NOTICES

- 1910, January 12: Public notice. Construction charge of \$55 per acre, due in 10 graduated annual installments.
- 1912, March 8: Public notice. Construction charge of \$66 per acre, due in 10 graduated annual installments.
- 1918, March 9: Public notice. Construction charge of \$90 per acre, due in 15 graduated annual installments.
- 1925, November 11: Public notice. Supplemental construction of power system. Rate of \$5 per acre, due in 12 equal annual installments commencing in 1925.
- 1925, November 19: Public notice. Supplemental construction of protective works. Rate of \$5 per acre, payable in one installment after regular charges.
- 1947, August 22: Public notice. Construction charge of \$76 per acre, payable in 15 years.
- 1951, September 4: Public notice. Eliminated increased construction charges under Public Notice No. 6.
- 1951, September 4: Public notice. Set construction charge at \$76 per acre, payable in 20 years.
- 1957, January 21: Public notice. Construction charge of \$76 per acre on newly included lands, payable in 15 years.

Summary of status of repayment of Reservation division:

Total value of contracted repayment	\$1,000,312
Total matured charges	989,665
Total matured charges repaid	989,665
Total matured charges unpaid	0

CONSTRUCTION REPAYMENT HISTORY—RESERVATION DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1910		\$42,685		\$42,685				
1911		28,848		28,848	\$4,622	\$35,766	\$40,388	\$40,388
1912		111,059		111,059	2,014	25,059	27,073	67,461
1913		46,138		46,138			67,890	135,351
1914		40,800		40,800			6,700	142,051
1915		14,270		14,270			73,097	215,148
1916		117,807		117,807			54,852	270,000
1917		5,184		5,184			4,200	274,200
1918	\$827,729							
1919	825,023			18,410	546,330		25,357	299,557
1920	817,931			52,444			130,871	430,428
1921	873,910	226,847		31,941			69,558	499,986
1922	873,910			26,613			11,904	511,890
1923	873,910			32,597			33,369	545,259
1924	869,136			32,344			40,781	586,040
1925	870,585			32,498			27,751	613,791
1926	896,184	34,473		34,473	27,040	14,439	41,479	655,270
1927	896,184	36,327		36,327	22,555	8,455	31,010	686,280
1928	922,352	24,637	¹ \$3,699	20,938	13,402	14,350	27,752	714,032
1929	891,582	36,245	¹ 33,274	2,971	31,351	¹ 22,089	9,262	723,294
1930	890,948	18,926		18,926	15,751	4,704	20,455	743,749
1931	889,116	18,976	¹ 1,400	17,576	14,625	1,362	15,987	759,736
1932 ²	889,116	19,008		19,008	12,831	2,815	15,646	775,382
1933 ²	892,960	16,668	¹ 4,598	12,070	9,470	1,378	10,848	786,230
1934 ²	893,510	9,291	¹ 6,112	3,179	7,586	242	7,828	794,058
1935 ²	879,629	4,761	¹ 10,606	¹ 5,845	4,187	¹ 5,962	¹ 1,775	792,283
1936 ²	873,688	4,200	¹ 4,805	¹ 605	3,394	¹ 3,854	¹ 460	791,823
1937 ²	873,691	4,738	¹ 707	4,031	3,445	126	3,571	795,394
1938	915,353	61,915	¹ 167	61,748	56,105	1,131	57,236	852,630
1939	918,134	10,932	¹ 1,885	9,047	8,127	2,898	11,025	863,655
1940	920,901	10,127		10,127	4,035	3,091	7,126	870,781
1941	920,901	7,218		7,218	2,492	5,026	7,518	878,299
1942	919,894	5,919	¹ 2,129	3,790	1,917	3,446	5,363	883,662
1943	919,894	4,495	¹ 66	4,429	2,357	4,006	6,363	890,025
1944	919,894	3,165		3,165	1,611	2,518	4,129	894,154
1945	919,647	2,198	¹ 247	1,951	1,954	1,463	3,417	897,571
1946	919,452	1,506		1,506	1,057	582	1,639	899,210
1947	919,452	1,348		1,348	1,296	296	1,592	900,802
1948	959,361	7,148	1,995	9,143	7,205	1,891	9,096	909,898
1949	958,223	553	¹ 169	384	1,492	¹ 1,083	409	910,307
1950	958,223	1,282		1,282	276	231	507	910,814
1951	958,223	1,070		1,070	720	1,006	1,726	912,540
1952	961,708	757	¹ 5,259	¹ 4,502	654	¹ 4,993	¹ 4,339	908,201
1953	964,675	895		895	741	191	932	909,133
1954	978,459	3,997		3,997	3,942	155	4,097	913,230
1955	981,729	4,465	¹ 996	3,469	3,313	55	3,368	916,598
1956	982,165	3,838		3,838	3,588	156	3,744	920,342
1957	991,314	4,921		4,921	4,778	250	5,028	925,370
1958	994,760	6,053		6,053	5,251	143	5,394	930,764
1959	994,760	5,190		5,190	3,907	802	4,709	935,473
1960	994,760	5,073		5,073	4,211	1,282	5,493	940,966
1961	994,760	4,986		4,986	4,332	862	5,194	946,160
1962	994,760	4,978		4,978	4,309	655	4,964	951,124
1963	994,760	5,605		5,605	4,785	669	5,454	956,578
1964	999,168	5,262		5,262	4,393	820	5,213	961,791
1965	999,168	8,260		8,260	7,435	869	8,304	970,095
1966	999,472	4,970		4,970	4,477	825	5,302	975,397
1967	999,472	4,904		4,904	4,794	493	5,287	980,684
1968	1,000,312	5,126		5,126	5,009	110	5,119	985,803
1969	1,000,312	3,745		3,745	3,745	117	3,862	989,665
Total		1,063,789	- 74,124	989,665	882,911	106,754	989,665	

¹ Decrease. Decreases cover cancellation of water-right applications and deferments under relief acts. Fiscal year 1952 decreases due to reduction of irrigable acreages resulting from revised farm unit plats and reduction of construction rate in accordance with Public Law 383, 81st Cong.

² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Total amount deferred for calendar years 1931 to 1936, \$36,816.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—RESERVATION DIVISION

Fiscal year	Accruals	Collections
1910	\$6,503	
1911	6,503	\$12,483
1912	24,719	24,999
1913	12,337	¹ 281
1914	12,384	6,885
1915	0	144
1916	8,212	16,626
1917	28,845	25,727
1918		
1919	46,106	42,203
1920	45,804	33,685
1921	68,734	77,098
1922	71,723	43,325
1923	59,677	75,600
1924	66,808	74,647
1925	74,874	74,981
1926	69,919	28,518
1927	71,414	68,787
1928	68,429	80,770
1929	43,372	91,788
1930	53,283	53,107
1931	51,453	48,362
1932	41,474	36,896
1933	41,311	41,023
1934	33,110	16,893
1935	29,065	35,898
1936	29,746	14,157
1937	29,424	65,476
1938	28,699	29,152
1939	33,524	33,301
1940	29,600	11,851
1941	29,459	25,636
1942	29,407	22,577
1943	29,372	31,210
1944	29,317	20,296
1945	29,310	52,894
1946	42,598	32,238
1947	39,949	23,513
1948	54,004	46,251
1949	84,262	91,903
1950	85,991	38,581
1951	86,925	120,327
1952	84,941	135,618
1953	214,853	130,675
1954	109,382	129,409
1955	109,753	114,802
1956	109,900	164,304
1957	118,667	115,461
1958	117,648	112,690
1959	131,509	133,937
1960	132,212	138,748
1961	146,650	145,599
1962	157,377	155,940
1963	162,625	163,736
1964	165,952	165,931
1965	191,733	185,275
1966	198,968	201,536
1967	214,287	212,741
1968	214,290	217,929
1969	218,735	221,408
Total	4,527,128	4,515,266

¹ Decrease.

VALLEY DIVISION

Construction costs of the Valley division features, as of June 30, 1969, amounted to \$4,361,511, which includes \$80,306 drainage costs repayable by the Yuma County Water Users' Association in accordance with contract 176r-671, article 16 (c) and \$135,975 transmission line costs repayable by Parker-Davis project. The Yuma County Water Users' Association has assumed a fixed repayment obligation in the amount of \$4,359,497 under the terms of the repayment contract dated April 1, 1957. The operation and maintenance of the Valley division was assumed by the Water Users' Association on July 1, 1951.

Repayment contracts.—Public Notice No. 6, issued April 6, 1917, fixed the construction charges at \$75 per acre, payable in 20 graduated installments. Public Notices No. 21 and 22, dated November 11 and 19, 1925, each announced an additional \$5 per acre charge for supplemental construction of a power system and flood-protection works, respectively. Payments under Public Notice No. 21 were payable in 12 annual installments, and a single payment under Public Notice No. 22 was to be made after all other regular charges were completed. Public Notices 65 and 66, issued on September 4, 1951, as a result of the act of October 25, 1949 (63 Stat. 903), canceled the increased construction charges accrued under the Reclamation Extension Act of 1914 (38 Stat. 686), and fixed the construction for all irrigable lands at \$85 per acre, with a 5 percent increase each year for those private lands making application after September 4, 1952. Under repayment contract executed by the Yuma County Water Users' Association on February 5, 1931, payment of unaccrued construction costs of Valley division features, exclusive of amounts due under Public Notice 21, were to be repaid in 30 years with the Association guaranteeing payment.

Repayment contract dated June 15, 1951, provided, among other things, for the transfer of the care, operation, and maintenance of the Valley division to the Association. This transfer was effective July 1, 1951.

Pursuant to the act of June 29, 1956 (70 Stat. 409), a contract to establish a fixed repayment obligation for the Association was executed on April 1, 1957. In return for the assumption of a fixed obligation of \$100,975, this contract releases the Association from its guaranty of amounts due for unaccrued construction charges as provided in the February 5, 1931, contract. Final payment under this contract was due December 1, 1962.

The contract of April 1, 1957, also provided for the Association to process water-right applications and certain other contracts covering project lands and property within the division. Rules and regulations covering the processing of these contracts were announced by Public Notice No. 77 on February 12, 1960.

Availability of water to certain Indian lands was announced February 12, 1960, by Public Notice No. 78, with construction charges of \$85 per acre being payable in 30 years.

Supplemental contract dated November 15, 1962, provided for the transfer to the Association of the care, operation, and maintenance of additional Yuma project works including the Yuma Main Canal and the Siphon Drop Powerplant effective January 1, 1963.

PUBLIC NOTICES AND CONTRACTS

- 1906, May 31: Agreement with Yuma County Water Users' Association whereby Association guaranteed payment for construction of works of the Valley division.
- 1917, April 6: Public notice. Construction charge \$75 per acre, payable in 20 graduated annual installments.
- 1925, November 11: Public notice. Supplemental construction charge of \$5 per acre for power system.
- 1925, November 19: Public notice. Supplemental construction charge of \$5 per acre for flood-protection works.
- 1930, May 19: Public notice. Construction charge of \$123.09 per acre, payable in 20 graduated annual installments.
- 1931, February 5: Contract 11r-635 with Yuma County Water Users' Association whereby the Association assumed ob-

ligation under individual water-right applications. Repayment period extended to 30 years.

- 1947, August 22: Public notice. Construction charge of \$85 per acre, payable in 30 years for newly included lands.
- 1951, June 15: Contract I76r-671 with Yuma County Water Users' Association for transfer of operation and maintenance of Valley division to Association, and repayment of \$80,306 of costs of drainage.
- 1951, September 4: Public notice. Eliminated increase in construction charges under Public Notice No. 6.
- 1951, September 4: Public notice. Construction charge set at \$85 per acre, payable in 30 years for all lands.
- 1957, April 1: Contract 14-06-300-621 with Yuma County Water Users' Association whereby the Association was released from its obligation under individual water-right applications and assumed a fixed repayment obligation.
- 1960, February 12: Public notice. Procedures for processing water-right applications and certain other contracts by the Yuma County Water Users' Association.
- 1960, February 12: Public notice. Construction charge of \$85 per acre, payable in 30 years for certain Indian lands.
- 1962, November 15: Supplemental contract 14-06-300-1317 with Yuma County Water Users' Association for transfer of care, operation, and maintenance of additional project works including the Yuma Main Canal and Siphon Drop powerplant, effective January 1, 1963, to the Association.

Summary of status of repayment contracts of Valley division:

Total value of contracted repayment	\$4,359,498
Total matured charges	4,359,498
Total matured charges repaid	4,359,498

Repayment completed in fiscal year 1963.

REPAYMENT OF RECLAMATION PROJECTS

CONSTRUCTION REPAYMENT HISTORY—VALLEY DIVISION

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1918	\$959,027	\$3,928		\$3,928			\$3,356	\$3,356
1919	1,116,699	24,210		24,210	\$3,356		19,769	23,125
1920	2,733,672			85,727			88,361	111,486
1921	3,022,982			56,851			39,437	150,923
1922	3,137,446	866,571		82,738	781,577		67,907	218,830
1923	3,168,560			103,775			88,500	307,330
1924	3,472,512			321,159			272,647	579,977
1925	3,531,039			216,321			204,956	784,933
1926	3,899,518	223,122	¹ \$1,633	221,489	122,202	\$86,104	208,306	993,239
1927	3,962,215	230,353		230,353	141,828	106,613	248,441	1,241,680
1928	4,176,809	226,507	¹ 9,880	216,627	146,979	86,798	233,777	1,475,457
1929	4,173,705	227,090	² 2,249	224,841	149,894	79,187	229,081	1,704,538
1930	4,157,125	225,049	¹ 14,413	210,636	161,857	63,912	225,769	1,930,307
1931	4,187,164	230,574	¹ 2,288	228,286	115,921	28,203	144,124	2,074,431
1932	4,190,635	² 124,621	¹ 199,828	³ 75,207	63,040	¹ 48,526	14,514	2,088,945
1933	4,213,564	² 24,761	¹ 41,050	¹ 16,289	23,152	19,554	42,706	2,131,651
1934	4,276,527	² 36,505	¹ 1,237	35,268	34,568	¹ 618	33,950	2,165,601
1935	4,311,679	² 25,549	¹ 7,269	18,280	24,436	¹ 3,538	20,898	2,186,499
1936	4,365,969	² 27,179	¹ 6,045	21,134	26,492	¹ 4,154	22,338	2,208,837
1937	4,385,326	² 100,512		100,512	75,142	1,253	76,395	2,285,232
1938	4,410,118	124,570		124,570	78,345	22,789	101,134	2,386,366
1939	4,410,118	122,934		122,934	76,526	42,962	119,488	2,505,854
1940	4,410,118	122,375		122,375	78,726	38,671	117,397	2,623,251
1941	4,366,616	³ 61,043	¹ 32,279	28,764	29,999	19,623	49,622	2,672,873
1942	4,389,121	³ 59,915		59,915	42,527	32,687	75,214	2,748,087
1943	4,388,280	119,658		119,658	101,263	19,922	121,185	2,869,272
1944	4,393,745	119,308		119,308	103,191	18,321	121,512	2,990,784
1945	4,393,745	120,240		120,240	108,143	16,014	124,157	3,114,941
1946	4,393,745	119,603		119,603	119,414	13,440	132,854	3,247,795
1947	4,408,945	102,208	¹ 235	101,973	100,749	268	101,017	3,348,812
1948	4,487,010	101,318	1,422	102,740	101,063	2,648	103,711	3,452,523
1949	4,487,010	101,129	⁴ 55,388	156,517	98,363	58,241	156,604	3,609,127
1950	4,485,054	129,146	¹ 39	129,107	128,855	45	128,900	3,738,027
1951	4,482,692	99,791	¹ 181	99,610	99,579	¹ 76	99,503	3,837,530
1952	4,455,884	109,380	¹ 4,966	104,414	109,356	¹ 4,622	104,734	3,942,264
1953	4,475,019	68,681		68,681	68,681	103	68,784	4,011,048
1954	4,536,325	54,704		54,704	54,695		54,695	4,064,743
1955	4,622,577	68,806	⁵ 40,231	109,037	68,806	40,240	109,046	4,174,789
1956	4,626,415	47,099		47,099	47,099		47,099	4,221,888
1957	⁶ 4,374,563	36,635		36,635	36,635		36,635	4,258,523
1958	⁷ 4,359,498	17,610		17,610	17,610		17,610	4,276,133
1959	4,359,498	17,809		17,809	17,809		17,809	4,293,942
1960	4,359,498	18,293		18,293	18,293		18,293	4,312,235
1961	4,359,498	17,968		17,968	17,968		17,968	4,330,203
1962	4,359,498	17,226		17,226	17,226		17,226	4,347,429
1963	4,359,498	12,069		12,069	12,069		12,069	4,359,498
Total		4,586,049	-226,551	4,359,498	3,623,434	736,064	4,359,498	

¹ Decrease. Decreases cover cancellation of water-right applications and deferments under relief acts.

² Moratorium period. Acts of Apr. 1, 1932; Mar. 3, 1933; Mar. 27, 1934; June 13, 1935; and Apr. 14, 1936. Construction charges deferred for calendar years 1931, \$61,280; 1932, \$124,336; 1933, \$142,221; 1934, \$145,682; 1935, \$140,176; 1936, \$39,357.

³ Construction charges deferred under act of Aug. 4, 1939: for year 1940, \$62,871; 1941, \$61,990.

⁴ Adjustment of future years' accruals due to payment in full of water-right contracts.

⁵ Increase.

⁶ Reduction in obligation resulted from establishment of a fixed repayment obligation in accordance with contract of Apr. 1, 1957, and act of June 29, 1956 (70 Stat. 409).

⁷ Decreased by difference between Valley division's share of actual cost of Southern Pacific trestle and estimate included in computation of fixed repayment obligation in 1957.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY—VALLEY DIVISION

Fiscal year	Accruals	Collections
1918		
1919	\$31,739	\$25,372
1920	137,424	136,699
1921	199,210	116,385
1922	184,477	125,238
1923	175,883	178,833
1924	278,543	298,574
1925	253,756	234,272
1926	235,500	204,634
1927	247,062	256,009
1928	234,620	275,110
1929	193,070	238,332
1930	176,945	173,527
1931	¹ 1,663	17,475
1932	161,646	214,325
1933	88,855	99,763
1934	62,502	62,512
1935	76,816	78,276
1936	43,814	44,710
1937	124,395	124,548
1938	126,144	126,144
1939	145,081	145,081
1940	123,853	123,853
1941	114,508	114,508
1942	139,428	139,428
1943	146,129	146,129
1944	171,411	171,411
1945	162,623	162,623
1946	138,495	138,495
1947	286,739	286,739
1948	385,715	385,715
1949	856,630	829,164
1950	568,962	453,466
1951	422,128	565,090
1952	22,000	22,000
1953	25,803	25,803
1954	19,386	19,386
1955	22,396	22,396
1956	20,532	20,532
1957	32,657	32,657
1958	50,069	50,069
1959	53,287	53,287
1960	57,537	57,537
1961	47,511	47,511
1962	53,349	53,349
1963	8,205	8,205
1964	11,397	11,397
1965	14,218	14,218
1966	12,223	12,223
1967	12,181	12,181
1968	8,277	8,277
1969	8,774	8,774
Total	7,172,242	7,172,242

¹ Decrease.

YUMA AUXILIARY PROJECT

ARIZONA

The Yuma Auxiliary project was authorized by the act of January 25, 1917 (39 Stat. 868). Original plans for irrigating agricultural lands in the Yuma project included 45,000 acres on the adjacent Yuma Mesa to be known as the Yuma Auxiliary project, which would receive its water by a pump lift of 72 feet from the East Main Canal in the Valley division of the Yuma project.

A public notice, issued October 3, 1919, authorized the sale of public lands and the construction of a distribution system to irrigate part 1 of Unit B.

Construction costs of the Auxiliary project amounted to \$1,482,513, excluding \$1,649,724 for features constructed as part of Yuma project. Of this, \$620,100 will be repayable by water users. Costs allocated to lands outside the Yuma Auxiliary project, as limited by the act of June 13, 1949 (63 Stat. 172), totaling \$1,641,052 were made nonreimbursable thereby. Of this amount, \$618,670 was offset by the application of Imperial Irrigation District credits in accordance with section 3 of the act of June 13, 1949 (63 Stat. 172). As of June 30, 1969, existing water rights totaled \$626,476, resulting in an excess of repayment coverage over original construction costs in amount of \$6,376. In addition to a charge for construction, each water-right application also includes a charge for land.

The act of June 13, 1949 (63 Stat. 172), which limited the Yuma Auxiliary project to 3,305 acres,

also authorized delivery of water to the project through the facilities of the Gila project. The Unit B Irrigation and Drainage District, encompassing the lands of the Yuma Auxiliary project, executed a contract on December 22, 1952, whereby an obligation of \$456,090 of Gila project costs was assumed for the District's share of Gila project capacity. In addition, an obligation of \$509,783 was assumed for rehabilitation and improvement of the Yuma Auxiliary project's irrigation works. Rate of repayment is dependent upon the acreage actually under water right.

On August 22, 1962, the District assumed an additional obligation of not to exceed \$450,000 for rehabilitation and betterment of project works. Repayment is to be made in annual installments of not less than \$11,250 over a 40-year period, except the last installment may be such lesser amount as will repay the District's obligation in full. The first payment was made on December 1, 1965, on a repayment obligation of \$335,764.

All costs are allocated to irrigation.

Works constructed exclusively for the Yuma Auxiliary project include the B Main Canal and the distribution system. Water deliveries through the facilities of the Gila project began on July 6, 1953. The B-Lift pumping plant, which originally pumped water from the Yuma project works, has since been abandoned.

COST AND REPAYMENT SUMMARY—YUMA AUXILIARY PROJECT

	IRRIGATION				
	Total project	Individual water rights	Unit B Irrigation and Drainage District		Special construction
			Additions and improvements	Rehabilitation and betterment	
Irrigation plant -----	\$1,181,114	\$611,427	\$509,783	\$34,365	\$25,539
Deferred maintenance—R&B -----	301,399			301,399	
Total construction costs -----	1,482,513	611,427	509,783	335,764	25,539
Yuma project features -----	1,649,724	1,649,724			
Gila project features -----	456,090		456,090		
Interest and penalties funded -----	493	493			
Total -----	3,588,820	2,261,644	965,873	335,764	25,539
Repayment and other credits:					
Repayment contracts -----	1,929,758	628,121	965,873	335,764	
Contributions -----	20,383	1,313			19,070
Repayments from other sources -----	6,469				6,469
Miscellaneous income -----	624,756	624,756			
Total repayment -----	2,581,366	1,254,190	965,873	335,764	25,539
Other credits:					
Repayment reductions authorized -----	1,022,382	1,022,382			
Total repayments and other credits -----	3,603,748	2,276,572	965,873	335,764	25,539
Excess repayments and other credits over cost -----	14,928	14,928			

In calendar year 1969, the irrigable area for service within the project was 3,305 acres, with 3,221 acres irrigated and a gross crop value of \$1,722,000 and an average per acre value of \$534.62.

Project works were transferred to the District for care, operation, and maintenance on January 1, 1960. Outside the project there are 101 irrigable acres for service, of which 80 acres were irrigated in calendar year 1969, producing a gross crop value of \$29,419 and an average per acre value of \$367.74.

PUBLIC NOTICES AND CONTRACTS

1919, October 3: Sale of land and water right. Construction charge \$200 per acre; land charge approximately \$25 per acre, payable in four equal annual installments. By act of February 21, 1925, the purchase price of land and water rights was payable thereafter in 10 equal annual installments at 6 percent interest.

1951, January 29: Public notice regarding exchange of private lands for public lands. The act of June 13, 1949, Public Law 102, 81st Congress, limited the area of the Yuma Auxiliary project and allowed exchange of private land with water right outside limited boundaries of the project for public lands within the boundaries. The cost of water right also was reduced to not less than \$160.

1952, December 22: Contract 14-06-300-44 with Unit B Irrigation and Drainage District. Established a maximum repayment obligation of \$966,090, with final cost of \$965,873 including \$456,090 for a share of Gila project costs and \$509,783 for extension and betterment of Yuma Auxiliary project works. Obligation to be repaid in 120 equal semiannual installments, with installments dependent on acreage under water right. Contract provided for delivery of water to not to exceed 215 acres of nonproject lands through the works of the project. In accordance therewith, two Warren Act contracts covering a total of 100.7 acres were executed with the Yuma Mesa Grapefruit Co. and the University of Arizona on December 23, 1953, and January 1, 1954, respectively.

1953, December 23: Warren Act contract with Yuma Mesa Grapefruit Co. for water delivery at current acre-foot rate beginning January 11, 1954, for an indefinite period.

1954, January 1: Warren Act contract with University of Arizona for water delivery at current acre-foot rate beginning January 4, 1954, for an indefinite period.

1956, July 18: Contract with Unit B Irrigation and Drainage District, amendatory to December 22, 1952, contract. Modified project boundaries.

1959, October 20: Contract with Unit B Irrigation and Drainage District, supplemental and amendatory to December 22, 1952, contract. Provided for transfer of title to certain movable property and for assumption by the District of care, operation and maintenance of project works as of January 1, 1960.

REPAYMENT OF RECLAMATION PROJECTS

1962, August 22: Contract 14-06-300-1274 with Unit B Irrigation and Drainage District. Provides for rehabilitation and betterment of project works with a maximum re-

payment obligation of \$450,000. Total repayment obligation of \$335,764 to be repaid in annual installments of \$11,250. First payment was made on December 1, 1965.

SUMMARY OF STATUS OF REPAYMENT CONTRACTS—YUMA AUXILIARY PROJECT

Item	Individual water rights		District contracts	Total
	Construction	Lands, etc. ¹		
Total value of contracted repayment -----	² \$626,476	\$605,467	\$1,298,633	\$2,530,576
Total matured charges -----	625,516	605,467	267,717	1,498,700
Total matured charges repaid -----	625,516	605,467	267,717	1,498,700
Total matured charges unpaid -----	-0-	-0-	-0-	-0-

¹ Includes purchase price of land, construction and land forfeitures, interest, and penalties.

² Includes \$493 of funded interest on construction charges.

CONSTRUCTION REPAYMENT HISTORY—INDIVIDUAL WATER RIGHTS

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1921-----	\$1,208,056	\$604,028	-----	\$604,028	\$423,388	-----	\$423,388	\$423,388
1922-----	1,206,056	300,514	-----	300,514	72,638	\$27,645	100,283	523,671
1923-----	1,189,390	297,348	¹ \$12,500	284,848	64,176	105,796	169,972	693,643
1924-----	1,065,557	290	¹ 124,993	¹ 124,703	290	6,140	6,430	700,073
1925-----	952,476	290	¹ 113,080	¹ 112,790	250	¹ 14,334	¹ 14,084	685,989
1926-----	843,807	290	¹ 108,669	¹ 108,379	290	¹ 12,027	¹ 11,737	674,252
1927-----	829,379	1,202	¹ 36,976	¹ 35,774	622	6,910	7,532	681,784
1928-----	712,785	0	¹ 107,500	¹ 107,500	0	¹ 48,785	¹ 48,785	632,999
1929-----	645,502	2,252	¹ 67,329	¹ 65,077	2,217	¹ 48,108	¹ 45,891	587,108
1930-----	607,571	696	¹ 45,586	¹ 44,890	348	809	1,157	588,265
1931-----	603,851	696	¹ 2,990	¹ 2,294	232	¹ 2,770	¹ 2,538	585,727
1932-----	604,993	812	2,663	3,475	232	2,943	3,175	588,902
1933-----	605,679	812	2,312	3,124	0	421	421	589,323
1934-----	604,885	812	¹ 1,928	¹ 1,116	232	¹ 1,309	¹ 1,077	588,246
1935-----	604,053	1,508	¹ 294	1,214	1,044	727	1,771	590,017
1936-----	596,815	1,537	¹ 8,017	¹ 6,480	940	¹ 6,309	¹ 5,369	584,648
1937-----	590,589	227	¹ 4,503	¹ 4,276	227	¹ 3,250	¹ 3,023	581,625
1938-----	584,577	226	¹ 5,069	¹ 4,843	226	¹ 4,986	¹ 4,760	576,865
1939-----	579,039	221	¹ 4,175	¹ 3,954	221	¹ 4,698	¹ 4,477	572,388
1940-----	579,106	116	2,191	2,307	116	2,919	3,035	575,423
1941-----	578,000	119	¹ 618	¹ 499	118	¹ 859	¹ 711	574,682
1942-----	578,030	119	508	627	119	522	641	575,323
1943-----	578,058	119	261	380	119	738	857	576,180
1944-----	585,018	6,960	116	7,076	6,960	116	7,076	583,256
1945-----	608,824	16,498	-----	16,498	16,498	-----	16,498	599,754
1946-----	724,033	37,757	-----	37,757	37,550	1,763	39,313	639,067
1947-----	774,382	29,487	-----	29,487	22,736	206	22,942	662,009
1948-----	794,487	21,401	232	21,633	13,391	1,401	14,792	676,801
1949-----	803,448	23,319	1,160	24,479	15,297	2,059	17,356	694,157
1950-----	813,540	26,248	¹ 480	25,768	10,131	12,245	22,376	716,533
1951-----	784,237	23,689	¹ 20,180	3,509	10,745	12,896	23,641	740,174
1952-----	795,461	13,724	-----	13,724	7,163	5,662	12,825	752,999
1953-----	800,203	17,697	-----	17,697	13,285	4,533	17,818	770,817
1954-----	811,996	15,331	-----	15,331	13,382	4,753	18,135	788,952
1955-----	813,097	8,647	¹ 162	8,485	6,860	1,949	8,809	797,761
1956-----	973,126	24,490	-----	24,490	24,037	1,625	25,662	823,423
1957-----	1,128,367	91,125	-----	91,125	82,493	453	82,946	906,369
1958-----	1,142,880	40,557	-----	40,557	18,754	8,632	27,386	933,755
1959-----	1,098,189	33,744	¹ 16,973	16,771	21,411	10,449	31,860	965,615
1960-----	1,106,515	39,914	-----	39,914	36,038	6,714	42,752	1,008,367
1961-----	1,201,795	43,898	-----	43,898	37,928	3,876	41,804	1,050,171
1962-----	1,211,921	45,986	-----	45,986	43,679	5,970	49,619	1,099,820
1963-----	1,218,843	46,538	-----	46,538	43,396	2,306	45,702	1,145,522
1964-----	1,225,322	35,666	-----	35,666	34,470	3,143	37,613	1,183,135
1965-----	1,228,115	15,427	-----	15,427	14,185	1,196	15,381	1,198,516
1966-----	1,229,892	11,106	-----	11,106	11,025	1,242	12,267	1,210,783
1967-----	1,231,178	10,083	-----	10,083	9,894	81	9,975	1,220,758
1968-----	1,231,817	9,031	-----	9,031	9,031	189	9,220	1,229,978
1969-----	1,231,943	1,006	-----	1,006	1,006	-----	1,006	1,230,984
Total-----	-----	1,903,563	-672,579	1,230,984	1,129,390	101,594	1,230,984	-----

¹ Decrease represents cancellations of water-right applications and voluntary relinquishments due to inability of water users to develop large tracts.

CONSTRUCTION REPAYMENT HISTORY—UNIT B IRRIGATION AND DRAINAGE DISTRICT

Fiscal year	Total obligation of water users	Accruals			Collections			
		Current year	Adjustments	Total	Current year	Prior years and adjustments	Total	Cumulative total
1954-----	\$375,789	\$5,586	-----	\$5,586	\$5,586	-----	\$5,586	\$5,586
1955-----	378,549	6,286	-----	6,286	6,286	-----	6,286	11,872
1956-----	832,139	6,289	-\$139	6,150	6,150	-----	6,150	18,022
1957-----	942,803	14,354	-----	14,354	14,354	-----	14,354	32,376
1958-----	946,409	15,546	-----	15,546	15,546	-----	15,546	47,922
1959-----	913,379	15,506	-----	15,506	15,506	-----	15,506	63,428
1960-----	913,379	15,199	-----	15,199	15,199	-----	15,199	78,627
1961-----	954,592	15,861	-----	15,861	15,861	-----	15,861	94,488
1962-----	958,976	15,971	-----	15,971	15,971	-----	15,971	110,459
1963-----	1,408,976	15,983	-----	15,983	15,983	-----	15,983	126,442
1964-----	1,412,869	16,036	-----	16,036	16,036	-----	16,036	142,478
1965-----	1,412,869	16,048	-----	16,048	16,048	-----	16,048	158,526
1966-----	1,412,869	27,297	-----	27,297	27,297	-----	27,297	185,823
1967-----	¹ 1,298,633	27,298	-----	27,298	27,298	-----	27,298	213,121
1968-----	1,298,633	27,298	-----	27,298	27,298	-----	27,298	240,419
1969-----	1,298,633	27,298	-----	27,298	27,298	-----	27,298	267,717
Total-----	-----	267,856	-139	267,717	267,717	-----	267,717	-----

¹ Value of repayment contract 14-06-300 1274 (R&B) reduced to a firm amount of \$335,764.03 from the estimated \$450,000.

OPERATION AND MAINTENANCE ASSESSMENTS
HISTORY

Fiscal year	Accruals	Collections
1921		
1922	\$17,072	\$4,912
1923	42,889	24,358
1924	59,762	26,492
1925	51,829	40,090
1926	44,256	36,949
1927	44,155	27,273
1928	38,473	79,216
1929	28,653	72,508
1930	31,443	39,360
1931	29,643	31,163
1932	28,548	24,276
1933	18,426	15,902
1934	18,105	15,244
1935	15,139	20,113
1936	15,013	19,884
1937	15,855	18,375
1938	18,329	17,993
1939	15,862	15,758
1940	13,250	12,525
1941	13,961	13,638
1942	14,312	13,601
1943	14,895	15,041
1944	20,915	22,247
1945	25,517	25,700
1946	32,189	32,005
1947	42,425	39,373
1948	43,231	42,959
1949	44,530	43,344
1950	62,399	58,355
1951	57,143	66,388
1952	70,267	70,155
1953	71,837	71,127
1954	95,728	99,727
1955	60,861	60,861
1956	63,427	63,427
1957	74,431	74,431
1958	70,860	70,860
1959	67,171	67,171
1960	25,013	25,013
1961	9,495	9,495
1962	8,168	8,168
1963	6,990	6,990
1964	5,656	5,656
1965	6,872	6,872
1966	10,478	10,478
1967	12,734	12,734
1968	9,076	9,076
1969	5,107	5,107
Total	1,592,390	1,592,390

PAYOUT STUDY¹—CONSTRUCTION COSTS—YUMA AUXILIARY PROJECT

Fiscal year	Revenue from individual water rights	Revenue from District contracts	Total revenue	Investment repayment	
				Irrigation plant in service at end of year ²	Balance to be repaid
1969					\$1,036,525
1970	\$2,205	\$27,348	\$29,553	\$1,918,733	1,006,972
1971	240	27,348	27,588	1,918,733	979,384
1972	80	27,348	27,428	1,918,733	951,956
1973	80	27,348	27,428	1,918,733	924,528
1974		27,348	27,348	1,918,733	897,180
1975		27,348	27,348	1,918,733	869,832
1976		27,348	27,348	1,918,733	842,484
1977		27,348	27,348	1,918,733	815,136
1978		27,348	27,348	1,918,733	787,788
1979		27,348	27,348	1,918,733	760,440
1980		27,348	27,348	1,918,733	733,092
1981		27,348	27,348	1,918,733	705,744
1982		27,348	27,348	1,918,733	678,396
1983		27,348	27,348	1,918,733	651,048
1984		27,348	27,348	1,918,733	623,700
1985		27,348	27,348	1,918,733	596,352
1986		27,348	27,348	1,918,733	569,004
1987		27,348	27,348	1,918,733	541,656
1988		27,348	27,348	1,918,733	514,308
1989		27,348	27,348	1,918,733	486,960
1990		27,348	27,348	1,918,733	459,612
1991		27,348	27,348	1,918,733	432,264
1992		27,348	27,348	1,918,733	404,916
1993		27,348	27,348	1,918,733	377,568
1994		27,348	27,348	1,918,733	350,220
1995		25,612	25,612	1,918,733	324,608
1996		16,098	16,098	1,918,733	308,510
1997		16,098	16,098	1,918,733	292,412
1998		16,098	16,098	1,918,733	276,314
1999		16,098	16,098	1,918,733	260,216
2000		16,098	16,098	1,918,733	244,118
2001		16,098	16,098	1,918,733	228,020
2002		16,098	16,098	1,918,733	211,922
2003		16,098	16,098	1,918,733	195,824
2004		16,098	16,098	1,918,733	179,726
2005		16,098	16,098	1,918,733	163,628
2006		16,098	16,098	1,918,733	147,530
2007		16,098	16,098	1,918,733	131,432
2008		16,098	16,098	1,918,733	115,334
2009		16,098	16,098	1,918,733	99,236
2010		16,098	16,098	1,918,733	83,138
2011		16,098	16,098	1,918,733	67,040
2012		16,098	16,098	1,918,733	50,942
2013		16,098	16,098	1,918,733	34,844
2014		16,098	16,098	1,918,733	18,746
2015		16,098	16,098	1,918,733	2,648
2016		2,648	2,648	1,918,733	

¹ Based on assumption that total of 3,305 acres will be under water right by the end of fiscal year 1970. Actual acreage under water right as of June 30, 1969, was 3,294.72 acres.

² Includes reimbursable original Auxiliary construction cost of \$620,100, repayable by individuals and \$1,298,633 repayable by District.

LOAN PROGRAM



LOAN PROGRAM

The loan program of the Bureau of Reclamation was authorized by the provisions of Public Law 984, 84th Congress, the Small Reclamation Projects Act of 1956 (70 Stat. 1044), as amended, and Public Law 130, 84th Congress, the Distribution System Loans Act of July 4, 1955 (69 Stat. 244), as amended.

The Small Reclamation Projects Act authorizes loans and grants to irrigation districts, conservancy districts, other public agencies, and States for the local construction of projects similar to those of the regular Reclamation program.

The Distribution System Loans Act authorizes loans for construction of distribution systems on authorized Federal Reclamation Projects by irrigation districts and other local water users organizations.

The material following shows the status of loans made under this program. Part A consists of Small Reclamation Projects Loans, and Part B consists of Distribution System Loans.

PART A

THE SMALL RECLAMATION PROJECTS ACT OF 1956, PUBLIC LAW 84-984 (70 STAT. 1044), AS AMENDED

BANTA-CARBONA IRRIGATION DISTRICT, CARBONA, CALIF.

The Banta-Carbona Irrigation District is located about 10 miles southeast of Tracy, Calif. It consists of about 17,880 acres.

The purpose of the loan is to finance concrete lining of $7\frac{1}{2}$ miles of existing major canals, construction of 39 miles of pre-cast and cast-in-place pipelines, rehabilitation of 5 miles of canal lining, construction of 20 miles of operating roads, repairing electric lines, and rehabilitation of pump discharge lines. Construction was started in November 1963 and July 31, 1969, was declared the official cutoff date for the project, with the first loan payment paid January 4, 1970. Project completion, however, was delayed due to adverse weather conditions, particularly in the winter of 1968-69.

Contract 14-06-200-608A was executed with the District on September 12, 1963, and provides for repayment to the United States of a maximum loan amount of \$964,000 in 40 successive equal annual principal installments.

BOUNTIFUL WATER SUBCONSERVANCY DISTRICT, BOUNTIFUL, UTAH

The Bountiful Water Subconservancy District is located just north of Salt Lake City, in Davis County, Utah. It contains about 4,400 irrigable acres.

Construction of a pressure irrigation distribution system consisting of pipelines and equalizing reservoirs was financed by the loan.

The total cost of the project is \$3,510,000. The District contributed all lands and interest in lands and rights to the use of water necessary to carry out the project and to operate and maintain the project works. Twenty-five percent of the cost was allocated to furnishing water for residential and other nonagricultural purposes. Contract 14-06-400-926 was executed with the District on November 4, 1958, and provides for repayment to the United States of a maximum loan amount of \$3,510,000 in 50 successive annual principal installments graduating from \$6,000 to \$146,000. Interest at the rate of $3\frac{1}{8}$ percent per annum is being paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District and on the portion allocated to furnishing water for residential and other nonagricultural purposes. At 5-year intervals a survey is to be made to

determine any increase in lands designated as non-agricultural and the unpaid loan obligation will bear interest according to such increase. The District reported in 1966 the nonagricultural land use was 42 percent.

The project was declared completed on June 30, 1961, and the first payment on the loan obligation was made March 1, 1963.

BROWN CANAL CO., SAFFORD, ARIZ.

The Brown Canal Co. is located in the southeast portion of Arizona, approximately 9 miles east of Safford and near the New Mexico State line. The company encompasses approximately 980 acres, of which about 875 acres are irrigable. Work accomplished with financing under the loan consisted primarily of lining the company's main canal and construction of necessary siphons, underdrains, and farm turnouts associated therewith.

Contract 14-06-300-1748 was executed with the company on December 30, 1965, and provides for repayment to the United States of a maximum loan amount of \$200,000 in 45 successive annual principal installments graduating from 1.775 to 2.35 percent of the loan. With each annual principal installment, the company is to pay interest at the rate of $4\frac{1}{8}$ percent on that portion of the loan attributable to furnishing irrigation benefits to excess lands within the project area and on that portion of the loan allocated to furnishing water for nonagricultural purposes.

The project was declared completed on May 15, 1967, for a total cost of \$193,908. The company's contributions amounted to \$29,773 and the loan obligation was established at \$164,135. The first payment on the loan was made on February 1, 1968.

BROWNS VALLEY IRRIGATION DISTRICT.

BROWNS VALLEY, CALIF.

The Browns Valley Irrigation District is located in Yuba County, about 80 miles north of Sacramento, Calif. The District contains about 42,000 acres, of which 13,200 are irrigable. At the time the loan application was developed, the District irrigated 3,400 acres. Water supply to irrigate an additional 7,200 acres was a purpose of the project.

The loan was used to finance construction of an earthfill dam 147 feet high containing 1,200,000 cubic yards of material, a 3,900-foot tunnel, a 50-foot lift pumping plant, 60 miles of canals, and to enlarge the existing distribution system. Water supply is obtained from French Dry Creek, a tributary of the Yuba River.

The reservoir resulting from impounded water has been named "Merle Collins Reservoir."

Construction commenced in 1961 and was completed in 1965. In the loan application report, the total estimated cost of the project was \$4,901,000. Final cost, including State recreation grant of \$671,588, was \$5,766,703. The Federal loan of \$4,797,071 was allocated to irrigation \$4,477,071, and incidental power generation \$320,000.

Contract 14-06-200-8676 was executed with the District on September 20, 1960, and provides for repayment of Federal loan to the United States over a 50-year period. The District commenced repayment January 1966. Interest at the rate of $4\frac{1}{8}$ percent per annum is paid on the portion of the loan allocated to power, and on the portion of the irrigation allocation attributable to furnishing water for municipal purposes and irrigation benefits to excess lands.

BYRON-BETHANY IRRIGATION DISTRICT, BYRON, CALIF.

The District is located at the junction of Alameda, Contra Costa, and San Joaquin Counties about 25 miles west of Stockton. Its gross acreage is 17,552, of which 10,000 are irrigated. Irrigation has been extended to an additional 2,600 acres by virtue of the project.

On June 24, 1964, the Secretary approved a loan application which provided for a loan of \$1,756,700 to rehabilitate and better the District's existing distribution system by constructing two pumping plants, increasing the capacity of existing pumps, replacing and installing new canal lining and concrete pipe, and constructing 23 miles of drain ditches, a control house, and telemetering system. Source of water supply is Italian Slough of the San Joaquin River and California Aqueduct.

Construction commenced in September 1966 and was completed in April 1968. Cutoff date was June 30, 1968. Loan funds were about \$100,000 short to complete concrete lining as planned. This work will be completed as District funds become available.

Repayment contract 14-06-200-2289A was executed August 5, 1965, providing for repayment in 40 years. The first annual installment was paid December 30, 1968. Final cost totaled \$2,040,330, loan amount \$1,756,700, with \$283,630 contributed by the District.

CAMERON COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1, HARLINGEN, TEX.

Cameron County Water Control and Improvement

District No. 1 is located in the vicinity of Harlingen, Tex. It contains 39,000 irrigable acres.

The purpose of the loan was to finance the rehabilitation and betterment of the District's existing irrigation system, which includes a storage basin, pumping plants, canal system, and drains. Substantial completion was accomplished in fiscal year 1967.

The total cost was \$4,796,877. The District's contribution amounts to \$200,000. All of the remaining \$4,596,877 will be repaid by the District. Contract 14-06-500-330 was executed with the District on March 24, 1958 (this was the first contract to be executed for a Small Reclamation project) and provides for repayment to the United States of a maximum loan amount of \$4,600,000 in 35 successive equal annual principal installments. Interest at the rate of 3 $\frac{3}{8}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District.

The first payment, due in 1968, was deferred by supplement No. 1 to contract 14-06-500-330, pursuant to the act of September 21, 1959. The 1969 payment was made as scheduled.

CAMERON COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 5. BROWNSVILLE, TEX.

Cameron County Water Control and Improvement District No. 5 is located in the vicinity of Brownsville, Tex. It contains 16,232 irrigable acres. The purpose of the loan is to finance the rehabilitation and betterment of the District's existing irrigation system, which includes construction of pipelines, canal lining, cleaning of canals and laterals, replacement of pump and motor at the relift pumping plant, rebuilding roads on drains, construction of an offstream regulating reservoir, and equipment. Completion is expected in fiscal year 1974.

The total estimated cost is \$4,996,000. The District's contribution amounts to \$88,500 and the amount of the loan is \$4,907,500. Contract 14-06-500-1375, executed with the District March 29, 1967, provides for repayment to the United States of a maximum of \$4,907,500 in 45 successive annual payments, the first of which shall become due in the year following that in which the project is substantially completed. Interest at the rate of 3 $\frac{1}{4}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District.

CAMROSA COUNTY WATER DISTRICT, CAMARILLO, CALIF.

The District is located in Ventura County and is a member of the Calleguas Municipal Water District and the Metropolitan Water District of Southern California. An application for a Public Law 984 loan was approved by the Secretary in October 1964 in support of a loan of \$4,800,000 to construct facilities to distribute imported water for agricultural and urban use throughout the District. The system constructed is a closed-pipe pressure system, fully automated, with a telemetering system to control the three relift pump stations and transmit data on water level in ten steel storage tanks. Pipelines are steel, mortar-lined, and coated, except for the final distribution lines which are of Transite. The system also includes seven pressure-regulating stations and ten metering stations. Of the District's 16,460 acres, 5,600 are cultivated in citrus, avocados, walnuts, seeds, and row crops.

On August 5, 1965, the District entered into a repayment contract 14-06-200-2267A, which provides for repayment of the loan in 40 years, commencing with January 1 of the sixth year following completion. Interest of 4 $\frac{1}{8}$ percent on furnishing M&I water and irrigation benefits to excess lands is payable January 1 following project completion.

Construction started December 1965 and was completed November 1, 1969.

CENTERVILLE-DEUEL CREEK IRRIGATION CO., CENTERVILLE, UTAH

The Centerville-Deuel Creek Irrigation Co. is located in the southern part of Davis County adjacent to the Wasatch Mountains. It contains about 700 irrigable acres.

The loan financed the construction of a distribution system to serve land within its service area. New works constructed include a regulating reservoir, a collection system from the Davis Aqueduct and Centerville Deuel Creek, and a pressure pipe distribution system.

Contract 14-06-400-986 was executed with the District on June 30, 1959, and provides for repayment to the United States of a maximum loan amount of \$402,000 in 48 successive annual principal installments graduating from \$1,000 to \$20,000. Interest at the rate of 3 $\frac{1}{8}$ percent per annum is being paid on the portion of the irrigation allocation attributable to furnishing irrigation benefits to excess land within the District and on the 14 percent of the loan allocated to furnishing water for residential purposes. At 5-year intervals a

survey is to be made to determine any increase in lands designated as nonagricultural and the loan obligation will bear interest according to such increase. The company reported in 1966 nonagricultural use of land in the project area to be 28 percent.

The project was declared completed on June 30, 1961, and the actual loan obligation determined to be \$401,802. Final project cost was \$467,000, of which the local contribution was \$65,200. Annual payments on the loan obligation have been made since March 1, 1963.

DONNA IRRIGATION DISTRICT, HIDALGO COUNTY NO. 1, DONNA, TEX.

Donna Irrigation District, Hidalgo County No. 1, is located in the Lower Rio Grande Valley of Texas. It contains about 34,500 irrigable acres.

The purpose of the loan was to finance the rehabilitation and betterment of the District's present irrigation and drainage system, which includes a storage basin, pumping plants, canal system, and drains. All work was completed by the end of fiscal year 1965.

The total cost of the project was \$4,410,000. The District's contribution amounts to \$343,000. \$24,000 of the loan is allocated to domestic, industrial, or municipal water supply benefits, and the remaining \$4,043,000 is allocated to irrigation. Contract 14-06-500-404 was executed with the District on October 13, 1959, and provides for repayment to the United States of a maximum loan amount of \$4,067,000 in 35 successive annual principal installments graduating from \$78,745 to \$128,386. Interest at the rate of $4\frac{1}{8}$ percent per annum will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District, and on that portion allocated to domestic, industrial, or municipal water supply benefits.

The first payment was made in August 1966 and all subsequent payments have been made on schedule except for the 1968 payment. The 1968 payment was deferred under provisions of the act of September 21, 1959, through a supplemental contract dated December 28, 1967.

EASTERN MUNICIPAL WATER DISTRICT, HEMET, CALIF.

Eastern Municipal Water District is located in western Riverside County, California, approximately 65 miles east of Los Angeles and about 15 miles southeast of the city of Riverside. The District is divided into a number of improvement districts, and the loan was for

use in Improvement District A, which contains about 36,525 irrigable acres.

The purpose of the loan was to finance construction of a distribution system to include 22 miles of main-pressure pipelines, 96 miles of distribution pipelines, three main pumping plants, eight booster plants, and four storage tanks. The system will be used primarily for delivering irrigation water, but a minor part will also be used for residential, urban, and municipal purposes.

Construction of the project consists of two phases. The initial phase was declared completed on June 29, 1968, for a total cost of \$5,452,983. The District's cash contributions amounted to \$480,000 and the final loan obligation was established at \$4,782,409. The second phase, amounting to \$720,000, will be financed entirely by District funds.

Contract 14-06-300-1169, dated May 2, 1961, as amended July 31, 1961, and May 24, 1965, provides for repayment to the United States of a maximum loan amount of \$4,980,000 in 40 successive annual principal installments graduating from \$20,000 to \$200,000. Interest at the rate of $4\frac{1}{8}$ percent per annum will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District, and on the portion allocated to nonagricultural uses. The first payment was made on June 1, 1966, based on an interim loan obligation as of June 30, 1966 (estimated), in accordance with terms of the contract.

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT, GEORGETOWN, CALIF.

Georgetown Divide Public Utility District is located in El Dorado County, California, about 40 miles north-east of Sacramento. It contains about 4,200 irrigable acres.

The loan was used to finance construction of a 162-foot-high earthfill dam on Pilot Creek, 15 miles of canal, a small diversion dam, a 4,600-foot tunnel, enlargement of a ditch, and construction of pipelines.

A loan of \$3,877,670 was approved by the Secretary March 16, 1959, and a repayment contract was executed February 19, 1960. Construction started in June 1960, and the District completed construction of the Pilot Creek works, including Mark Edson Dam and Reservoir, under the original loan contract in January 1962. In February 1962, the District requested a supplemental loan of \$759,330 to enlarge a portion of the carrier canal and to construct pipelines, which increased the total cost to \$5,319,692. Amendatory contract 14-06-200-8186, executed on September 13, 1963, pro-

vided for repayment of the total loan of \$4,637,000 over the same 49-year repayment period, with payments graduated to a greater degree than the original contract. Final cost, including a State grant of \$300,000, was \$5,408,959, with final loan obligation \$4,634,049. The District made its first payment January 1963, with six installments paid to date. Interest is charged on the portion of the loan attributable to furnishing water each year for municipal purposes and irrigation benefits to excess lands. In July 1968, the District petitioned the Bureau to revise the repayment schedule since it found itself unable to repay the loan obligation in the amounts and times indicated. This inability to repay as scheduled was primarily due to increased right-of-way, legal, and engineering costs from an estimated \$325,000 to \$979,725, and lack of agricultural and municipal and industrial development as had been projected. In 1967, only half the 9,750 acre-feet of project water projected in the original report was sold. The payment schedule was subsequently changed to provide a 5-year period of low installment payments and reflect a more gradual buildup. The District will also be permitted, under Bureau jurisdiction, to use \$97,000 annual payments received from Sacramento Municipal Utility District for the next 5 years for capital improvements to its water transmission system to service existing and new customers.

GOLETA COUNTY WATER DISTRICT, GOLETA, CALIF.

Goleta County Water District is located along the Pacific Ocean in Santa Barbara County, California, west of the city of Santa Barbara. It contains about 3,855 irrigable acres.

The loan was used to finance construction of additional distribution facilities, consisting of 8 miles of 33-inch high pressure concrete cylinder pipe conduit and an 8- and 21-inch pipe distribution system for 1,040 acres.

The total cost of the project was \$1,666,395, with a loan of \$1,626,343, which was well under the approved loan amount of \$2,080,000. Contract 14-06-200-7723 was executed with the District on April 29, 1959. It provides for repayment of the loan in 40 successive annual principal installments graduating from \$5,000 to \$61,000. Construction commenced June 1960 and was completed October 1, 1961. First loan payment was received January 2, 1962, and subsequent payments have been received as scheduled. Interest at the rate of 31/8 percent per annum is paid on that portion of the loan attributable to furnishing water for domestic and

municipal and industrial uses, as well as that portion which provides irrigation benefits to excess lands.

HAIGHTS CREEK IRRIGATION CO., KAYSVILLE, UTAH

Hights Creek Irrigation Co. is located near Kayville, in Davis County, Utah. It contains about 2,300 irrigable acres, of which some 740 acres will be served by a pressure system.

The loan financed the construction of a pressure irrigation distribution system, which includes a regulating reservoir, a diversion structure on Hights Creek, and a system of pipelines to convey water to the individual users.

Contract 14-06-400-1229, executed with the company on September 26, 1960, as amended on February 14, 1962, provides for repayment to the United States of a maximum loan amount of \$340,000 in 38 successive annual principal installments graduating from \$5,900 to \$18,500. At present, 20 percent of the loan is allocated to furnishing service to lands designated as nonagricultural. Reflecting the difference in interest rates as established by the Secretary of the Treasury pursuant to Public Law 984 on the date of the original loan and on the date of the supplemental loan, interest is payable on 63 percent of the 81/2 percent at the rate of 41/8 percent per annum, and on 37 percent of the 81/2 percent at the rate of 33/4 percent per annum. At 5-year intervals a survey is to be made to determine any increase in lands designated as nonagricultural. The loan obligation will bear interest according to such increase. Interest will also be paid at the rate of 41/8 percent per annum on 63 percent and at the rate of 33/4 percent on 37 percent of the portion of the loan attributable to furnishing irrigation benefits to excess lands.

Subject to a final audit, the project was completed in December 1962, at a cost of \$340,845, including a loan of \$326,845 and a local contribution of \$14,000. First repayment was made in March 1964.

HIDALGO AND WILLACY COUNTIES WATER CONTROL AND IMPROVEMENT DISTRICT NO. 1, EDCOUCH, TEX.

Hidalgo and Willacy Counties Water Control and Improvement District No. 1 is located in the vicinity of Edcouch, Tex. It contains 69,405 irrigable acres. The purpose of the loan is to finance the rehabilitation and betterment of the District's existing irrigation system, which includes the overhaul of the drainage system, construction of concrete lined canals, replace-

ment of faulty concrete and metal pipe distribution systems, and the purchase of equipment. The first advance of funds is expected in fiscal year 1971 and completion is scheduled for fiscal year 1976.

The total estimated cost is \$5,411,000. The District's contribution amounts to \$293,100 and the amount of the loan will be \$5,117,900. Contract 14-06-500-1388, executed with the District August 8, 1969, provides for repayment of a maximum of \$5,117,900 in 43 successive annual installments. Of this sum, \$14,300, which includes interest during construction, has been allocated to municipal and industrial water. Interest at the rate of 3 $\frac{3}{8}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District and to the cost allocated to municipal and industrial water.

HOOPER IRRIGATION CO., HOOPER, UTAH

Hooper Irrigation Co. is located in western Weber and Davis Counties.

The company's service area contains about 14,000 irrigated acres. The loan financed the rehabilitation and betterment of the company's existing canal system, including the concrete lining of the canal, construction of diversion structures, check structure, headgates, culverts and crossings, measuring devices, and drains.

Contract 14-06-400-3481, executed by the company on March 10, 1964, as amended April 13, 1966, provides for repayment to the United States of the loan not to exceed \$1,618,000 in 50 successive annual installments graduating from \$6,500 to \$34,500. Interest is to be paid to the United States at a rate of 4 percent per annum on that portion of the unpaid loan attributable to furnishing water for nonagricultural purposes, which now consists of eight-tenths of one percent.

Construction was completed June 1968.

The final audit established the loan obligation at \$1,505,211. The first installment of \$6,500 was paid January 12, 1968.

JACKSON VALLEY IRRIGATION DISTRICT, IONE, CALIF.

Jackson Valley Irrigation District is located in Amador County, California, about 35 miles southeast of Sacramento. It contains about 3,315 irrigable acres.

The purpose of the loan was to finance construction of an earthfill dam 177 feet high, containing 1,300,000 cubic yards of material, creating a reservoir capacity of 22,000 acre-feet, and to construct a distribution system to convey the water. The reservoir impounded has been named Lake Amador.

Originally, the total cost of the project was estimated to be \$1,393,000, and the District was to contribute \$66,000. Contract 14-06-200-8190 was executed with the District on March 1, 1960, providing for repayment to the United States of a maximum loan amount of \$1,327,000.

After completion of designs and specifications for the dam, and before starting construction, the District's engineers advised that, due to increases in cost estimates for the necessary facilities to serve the District, it would be necessary to apply for a supplemental loan. The overall project was essentially the same as that proposed in the original application except for the inclusion of additional distribution facilities. A revised loan application was filed in July 1963, which increased the loan amount to \$2,378,000, and an amendatory contract was executed April 10, 1964. The actual loan amount, including Bureau costs, totaling \$2,377,804 is to be repaid in 50 successive annual principal installments graduating from \$1,000 to \$55,000. First payment was made January 2, 1962.

Interest is paid at the rate of 4.07 percent per annum on the portion of the loan attributable to furnishing a water supply for municipal purposes and to furnishing irrigation benefits to excess land. This represents the weighted average between 4 $\frac{1}{8}$ percent under the original contract and 4 percent under the amendatory contract. Construction of the project commenced in July 1964 and was completed August 1, 1966. The District also obtained two State grants amounting to \$420,549 for recreational purposes.

KAYS CREEK IRRIGATION CO., LAYTON, UTAH

Kays Creek Irrigation Co. is located 1 to 3 miles northeast of Layton, Utah, within the service area of the Weber Basin project, situated below the Davis aqueduct.

The loan financed construction of an irrigation pressure pipeline system and equalizing reservoir, service connections, valves, and miscellaneous items.

The project lands cover an 800-acre portion of the company's service area.

Total estimated cost of the project was \$429,000, with the company's contribution valued at \$21,000. Contract 14-06-400-4278 was executed with the company November 22, 1965. It provides for repayment of the loan obligation not to exceed \$408,000 in 46 years, with annual installments graduating from \$2,500 to \$17,500. The company makes an annual determination of the use of project water between agricultural and nonagricultural. In 1968, the nonagricultural use

was 18.8 percent. The company pays interest at the rate of $4\frac{1}{8}$ percent on the unpaid balance of its loan attributable to furnishing nonagricultural water. The project was declared completed June 30, 1967, and the company paid its first annual installment in February 1968.

KING HILL PROJECT, IDAHO

Over a period of years, irrigation facilities within the King Hill Irrigation District deteriorated to the extent that rehabilitation and betterment work was necessary to assure an adequate water supply for continued irrigation. Pursuant to provisions of the Small Reclamation Projects Act of 1956 (70 Stat. 1044), as amended (71 Stat. 48), the Secretary of Interior approved the granting of a \$696,700 loan to the King Hill Irrigation District on March 18, 1963.

Work performed under this loan consisted of replacing laterals and siphon structures, canal spillway construction, repairing and improving concrete flumes, straightening and lining portions of the main canal, and improving access and ditchrider roads.

The actual loan obligation to be repaid by the District is \$686,474.45. In addition, the repayment contract specified that the District contribute rights-of-way, construction and other work, all valued at \$72,000. All improvements needed to adequately restore the irrigation system were not accomplished under the initial loan. Accordingly, the District has submitted an application for a supplemental loan of \$121,600. An amendatory repayment contract has been executed for repayment of a loan of \$807,600 within 50 years. The District's contribution was increased to \$100,200.

The irrigated area of the District is 9,300 acres, including 300 acres of urban lands. For 1969, the gross crop value was \$678,010 and the average value per irrigated acre was \$86.23.

Repayment contracts.—On February 27, 1964, a repayment contract with the King Hill Irrigation District was signed covering an estimated loan of \$696,700. This obligation covers irrigation and domestic, industrial, and municipal water supply purposes. The allocation to domestic, industrial, and municipal water supply has been established at 3.225 percent of the total obligation and bears interest at the rate of 4 percent per annum. The irrigation allocation, or 96.775 percent, is interest free except for 4 percent interest charged annually on that portion of the obligation assigned to excess land holdings. The repayment period is set at 50 years; however, during the first 7 years only interest payments on the DM&I obligation are required. The

first interest payment was due June 30, 1969. The first principal installment will be due in 1976, one-half on January 1 and one-half on June 30.

KLAMATH BASIN IMPROVEMENT DISTRICT, KLAMATH FALLS, OREG.

Klamath Basin Improvement District is located in the Upper Klamath River Basin in Klamath County of southcentral Oregon and Modoc and Siskiyou Counties of northcentral California. It contains about 9,750 irrigable acres.

The loan was used to finance extension and enlargement of facilities of the Klamath project to irrigate District lands with water surplus to the needs of the project. Works constructed included two new pumping plants, enlargement of an existing pumping plant, enlargement of three existing canals, and the extension of certain minor drains.

The total estimated cost of the project was \$992,100. The District's contribution was estimated to be about \$50,000. All of the remaining \$942,100 is allocated to irrigation. Contract 14-06-200-41A was executed with the District on April 25, 1962, and provides for repayment to the United States of a maximum loan amount of \$942,100 in 40 successive annual principal installments graduating from \$5,280 to \$10,550. Interest at the rate of $3\frac{3}{4}$ percent per annum is paid on the portion of the loan attributable to furnishing irrigation benefits to excess lands within the District.

Of the total loan to the District, \$460,960 is allocated toward repayment of the cost of the Pumping division.

All work under the loan has been completed at a final cost of \$841,907, including loan funds of \$817,993 and a local contribution of \$23,914. First repayment was made in January 1964.

MALAD VALLEY IRRIGATING CO., INC., MALAD CITY, IDAHO

The Malad Valley Irrigating Co., Inc., is located immediately west of Malad City, Idaho. At present, there are 4,080 acres irrigated. An additional 780 acres will be served with a full water supply from the project.

The purpose of the loan is to finance the construction of Devil Creek Dam and Reservoir, with a total capacity of 4,450 acre-feet and with appurtenant structures, miscellaneous canal structures, and a recreational area.

The total estimated cost of the project is \$1,308,000, with local contributions valued at \$69,000.

Grants of \$249,000 are provided for fish and wildlife conservation and recreation, and \$153,000 for flood

control. The company's repayment obligation is established at not to exceed \$837,000, which is to be paid in not more than 50 annual installments. Contract 14-06-400-4918 was executed with the company May 10, 1968. The first installment is \$10,300, second \$12,700, and third \$15,000, and thereafter annually $\frac{1}{47}$ th of the unpaid loan obligation. The company will pay interest annually at $3\frac{1}{4}$ percent per annum on the following: (1) that portion of nonagricultural water used, and (2) excess lands. The interest computation will be on 70.25 percent of the unpaid obligation, as provided in the cost-sharing provisions of the Small Loan Projects Act.

MITCHELL IRRIGATION DISTRICT, NEBR.

The Mitchell Irrigation District is located about 10 miles northwest of Scottsbluff in western Nebraska in the North Platte Valley. The District includes about 10,993 acres which have been irrigated since the 1890's. The proposed loan was approved by the Secretary of the Interior on October 24, 1967.

Phase I of the proposed loan is for installation of 30 miles of buried pipe laterals to serve the Mitchell Irrigation District lands at an estimated cost of \$1,204,180. Under the initial contract with Mitchell Irrigation District, repayment is to be on an annual basis, with \$23,000 installments for the first 10 years and an estimated \$24,355 annually for the remaining 40 years of the 50-year repayment period. The Mitchell Irrigation District is contributing \$27,000 towards the cost of this construction. By resolution of August 4, 1970, the board of directors of the Mitchell Irrigation District approved the proposed repayment contract for Phase I.

Phase II, in conjunction with the 13,481 irrigable-acre Gering Irrigation District, is for the rehabilitation and betterment of the Diversion Dam and the 26-mile-long Mitchell Main Canal which also serves the Gering Irrigation District. The estimated cost of this work is \$422,820, repayable over a 50-year period. Under a proposed second contract, currently being negotiated between the United States and the Mitchell and Gering Irrigation Districts, the Mitchell Irrigation District's obligation will be \$190,269, or \$3,805 annually for the 50 years. Gering Irrigation District's obligation will be \$232,551, or \$4,651 annually for 50 years.

Construction of Phase I of the work was scheduled to commence in fiscal year 1971.

MOLOKAI IRRIGATION PROJECT, HAWAII

Molokai irrigation project is located on the island of Molokai, Hawaii, which is about 53 miles from Hono-

lulu. The two principal areas to be irrigated are Hoolehua in central Molokai, and Mauna Loa on the western end of the island. It contains about 13,650 irrigable acres.

The purpose of the loan is to assist in financing construction of the Molokai project, which is to consist of Waikolu Valley Diversion works, tunnel, feeder mains, reservoirs, and distribution works. The project will develop water from the Waikolu Valley watershed and transport it to the semiarid acres of central and west Molokai.

The total estimated cost of the project is \$9,910,400. The State's contribution amounts to \$5,396,400. Contract 14-06-W-146 was executed with the State on June 3, 1963, and provides for repayment to the United States of a maximum loan amount of \$4,514,000. The repayment period is 43 years; however, during the first 3 years after completion of the project no payment on the principal will be made, although interest will be paid at the rate of $3\frac{7}{8}$ percent per annum, beginning the first year after completion of that portion of the loan attributable to furnishing irrigation benefits to excess lands. Payment of the principal will be in 40 successive equal annual installments, beginning the fourth year after completion.

NEVADA IRRIGATION DISTRICT, GRASS VALLEY, CALIF.

This Public Law 984 project, which is located in the southwest portion of Nevada County and north-central portion of Placer County, is designed to rehabilitate and expand an existing distribution system to improve present service and provide for irrigation of an additional 18,000 acres, or 100 percent more land than presently irrigated. Total District lands encompass some 268,000 acres. Water is obtained from the Yuba-Bear River project.

The present system was originally built to furnish water for placer mining during the 1800's and contains some 650 miles of conveyance facilities. To improve this complex system of main feeder canals, flumes, natural water courses, and antiquated structures, the District applied for a Small Reclamation Projects loan. The Secretary approved the loan on December 3, 1964.

Repayment contract 14-06-200-4253A, executed January 3, 1969, provided for repayment in 40 years of a loan not to exceed \$4,950,000. Total estimated project cost was \$5,157,200. Interest is to be charged at the rate of $3\frac{1}{2}$ percent for municipal water supply or furnishing irrigation benefits to excess lands.

Construction commenced in March 1969. The Dis-

trict is the first loan project to use reinforced plastic mortar pipe, called "Techite," for its distribution system.

NORTH POUDDRE IRRIGATION CO., COLO.

The North Poudre Irrigation Co., organized in 1901, serves about 34,000 irrigated acres of land in north-central Colorado, just north of the city of Fort Collins. The \$952,000 loan will be used to finance (a) the construction of the offstream Park Creek Dam and Reservoir with a total capacity of 7,155 acre-feet, and (b) the modification and improvement of the outlet works of the existing Halligan Dam on the Cache la Poudre River. The total cost of the work was originally estimated at \$997,000, of which \$45,000 will be contributed by the company in the form of rights-of-way, personal services, preliminary studies, surveys, and reports.

A loan repayment contract (14-06-700-6307) was entered into with the company on June 12, 1967. The contract provides that the loan obligation shall be repaid by the company in 50 successive annual installments, the first of which shall become due on June 20 of the year following that in which the project is substantially completed. During the first 10 years, the annual installment will be \$15,600. During the remaining 40 years, the annual installment will be an estimated \$19,900, or 1/40th of the loan obligation remaining unpaid after payment of the tenth installment.

No municipal or industrial use of water is now contemplated, but the contract provides for interest payments should nonagricultural uses develop. It also provides for interest payments on that portion of the loan attributable to furnishing irrigation benefits to excess lands. Interest is to be computed at the rate of 3 $\frac{1}{4}$ percent, in accordance with provisions of the September 2, 1966, amendment to the Small Reclamation Projects Act of 1956.

Because of a very favorable contract price for construction of Park Creek Dam, a supplemental contract was entered into between the United States and the company on December 30, 1969, to expand the work to be accomplished with the \$952,000 loan. The supplemental contract permits using the unencumbered balance (est. \$175,000) of the loan for acquisition and installation of radio communication equipment and facilities for the remote control of Halligan Dam and Fossil Creek Dam owned by the company and the company-operated North Poudre Diversion Dam, which is a feature of the Bureau's Colorado-Big Thompson project. Also, to the extent that unencumbered loan

funds remain thereafter, minor rehabilitation and betterment work, consisting of installation of pipe laterals and concrete lining of canals, will be accomplished in various portions of the company's irrigation system. No change was made in the repayment arrangements contained in the original contract.

Construction of Park Creek Dam and Reservoir was completed February 20, 1970, at a construction contract cost of \$620,000. Work on the remaining features of the loan project was scheduled to commence in 1970.

ORCHARD CITY IRRIGATION DISTRICT, AUSTIN, COLO.

Orchard City Irrigation District is located in Delta County, Colorado, within the Gunnison River Valley. It contains about 2,690 irrigable acres.

The District operates the Fruitgrowers Dam project, a Federal project which furnishes supplemental water to lands within the District. The loan financed the construction of a pumping plant on the Gunnison River, a discharge pipeline, two gravity-flow canals, and an access road.

The total cost of the project is \$279,000. The District's contribution amounted to \$9,000. All of the remaining \$270,000 is allocated to irrigation. Contract 14-06-400-2894 was executed with the District on March 11, 1963, and provides for repayment to the United States of a maximum loan amount of \$270,000 in 49 successive annual principal installments graduating from \$2,000 to \$6,500. Interest at the rate of 3 $\frac{7}{8}$ percent will be paid annually on any portion of the unpaid loan attributable to furnishing irrigation benefits to excess lands within the District.

PLEASANT VALLEY COUNTY WATER DISTRICT, OXNARD, CALIF.

Pleasant Valley County Water District is located on the coastal plain in Ventura County, California, approximately 60 miles northwest of Los Angeles. It contains about 11,860 irrigable acres.

The purpose of the loan was to finance construction of 20 miles of a 12- to 54-inch concrete pipe distribution system to provide District lands with a supplemental surface supply of water.

The total estimated cost of the project was \$2,170,140, with the District's contribution estimated at \$130,140. Contract 14-06-200-8163 was executed with the District on February 1, 1960, and provides for repayment to the United States of a maximum loan amount of \$2,040,000 in 40 successive equal annual installments. Interest at the rate of 4 $\frac{1}{8}$ percent is paid on

the portion of the loan allocated to furnishing water for nonagricultural purposes and for furnishing irrigation benefits to excess lands in the District.

All work on this project has been completed at a final cost of \$2,261,375, of which the District contributed \$221,375. The first payment was made in August 1962.

ROOSEVELT IRRIGATION DISTRICT, BUCKEYE, ARIZ.

Roosevelt Irrigation District is located in the central part of Arizona, entirely within Maricopa County, approximately 17 miles west of Phoenix. It contains about 37,105 irrigable acres.

The purpose of the loan was to finance the rehabilitation and improvement of the well system, repair of the lining of the main canal, rehabilitation of a flume across the Agua Fria River, lining of the lateral system, and to upgrade buildings and equipment.

The project was declared completed on October 31, 1966, for a total cost of \$4,197,691. The District's contributions amounted to \$243,295, and the loan obligation was established at \$3,954,396. The first loan repayment was made on August 1, 1967.

Contract 14-06-300-1323 was executed with the District on December 26, 1962, and provides for repayment to the United States of a maximum loan amount of \$4,620,000 in 48 successive annual principal installments graduating from 1.5 percent to 2.5 percent of the loan. Interest at the rate of $3\frac{7}{8}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land within the District and on the portion of the loan allocated to furnishing water for nonagricultural purposes.

ROOSEVELT WATER CONSERVATION DISTRICT, HIGLEY, ARIZ.

Roosevelt Water Conservation District is located in the central part of Arizona, within Maricopa County, about 25 miles east-southeast of Phoenix. It contains about 36,110 acres developed for irrigation.

The purpose of the loan is to finance construction and repair of concrete lining of canals, rehabilitation of the lateral system, and drilling and equipping six replacement irrigation wells.

The estimated total cost of the project is \$4,965,300, including contributions by the District in the amount of \$131,000. Contract 14-06-300-1724 with the District was executed on November 26, 1965, and provides for repayment to the United States of a maximum loan amount of \$4,834,300 in 50 successive annual

principal installments graduating from 1.25 percent to 2.6 percent of the loan. With each annual principal installment, the District will pay interest at the rate of $4\frac{1}{8}$ percent on that portion of the loan attributable to furnishing irrigation benefits to excess lands within the project area and on that portion of the loan allocated to furnishing water for nonagricultural purposes.

As of June 30, 1969, the total cost of the project, including \$131,000 of District contribution, was \$3,338,164. The work was scheduled for completion in fiscal year 1971.

ST. JOHN IRRIGATING CO., MALAD, IDAHO

St. John Irrigating Co. lands are located in the immediate vicinity west of the city of Malad, Oneida County, Idaho. Some 3,685 acres have not been adequately irrigated. With the project, this acreage will receive a full water supply, and about 1,285 acres previously dry-farmed will be supplied with irrigation water.

The purpose of the loan is to finance the construction of Daniels Dam and Reservoir, with a total capacity of 8,600 acre-feet, on the Little Malad River and miscellaneous canal structures.

The total estimated cost of the project is \$1,145,000. The company's contribution is estimated at \$193,000, and a grant of \$122,000 for fish conservation is provided in the approved project plans. Contract 14-06-400-3769 was executed with the company September 9, 1964, and an amendatory contract, executed June 25, 1970, covers the repayment of \$830,000 in not to exceed 50 successive annual installments graduating from \$500 to \$19,380 or $1/42$ nd of the remaining unpaid loan obligation by the eighth year. The amendatory contract also provides for payment of interest at the rate of $3\frac{3}{8}$ percent on that portion of the loan attributable to furnishing irrigation benefits to excess lands within the District. Interest at $4\frac{1}{8}$ percent shall be paid on the portion of the unpaid loan obligation that is attributable to furnishing municipal, industrial, and domestic water.

SAN BENITO COUNTY WATER CONSERVATION AND FLOOD CONTROL DISTRICT, HOLLISTER, CALIF.

San Benito County Water Conservation and Flood Control District is located along the San Benito River and is centered near the town of Hollister, about 90 miles southeast of San Francisco. Zone 3 of the District, which is to be benefited by the project, contains about 16,000 irrigable acres.

The purpose of the project was to finance the con-

struction of an earthfill dam 120 feet high to form a reservoir of 18,000 acre-feet capacity at the Hernandez site of the San Benito River. Flood waters are stored and later released downstream for diversion and spreading in percolation areas through existing project works.

The total estimated cost of the project was \$1,675,000. The District's contribution was estimated at \$250,000. Contract 14-06-200-8891 was executed with the District on December 30, 1960, and provides for repayment to the United States of a maximum loan amount of \$1,425,000 in 40 successive annual principal installments graduating from \$15,000 to \$35,000. Interest at the rate of $4\frac{1}{8}$ percent is charged on the portion of the loan attributable to furnishing irrigation benefits to excess lands within the District and on the portion of the loan allocated to furnishing water for nonagricultural purposes. Construction commenced in April 1961 and was completed in February 1962. Final cost was \$1,786,100, with final loan amount of \$1,426,219, the amount allowed under the contract. The first payment was made January 1963 and payments are continuing to date.

SANTA YNEZ RIVER WATER CONSERVATION DISTRICT, SOLVANG, CALIF.

The Santa Ynez River Water Conservation District is located in the southern half of Santa Barbara County, about 120 miles northwest of Los Angeles and 35 miles northwest of Santa Barbara. It contains about 4,680 irrigable and 1,120 urban acres.

The loan was used to finance construction of a pressure pipeline and distribution system, taking water in part from Reclamation's Cachuma project. The system consists of about 50 miles of modified prestressed concrete cylinder, mortar-lined cast iron, and asbestos cement pipe varying in size from 4 to 30 inches. Also included are two chlorination stations, two pumping plants, three reservoirs, and five wells. Construction commenced in 1960 and was completed in 1965.

The total cost of the project was \$3,836,558. Contract 14-06-200-8253 was executed with the District on March 16, 1960, and provides for repayment to the United States of a maximum loan amount of \$3,800,000 in 40 successive annual principal installments graduating from \$10,000 to \$107,000. Interest at the rate of $4\frac{1}{8}$ percent per annum is paid on the portion of the loan attributable to furnishing irrigation benefits to excess land in the District and on the portion allocated to furnishing a domestic and municipal and industrial water supply. First payment on the loan was

made in January 1966. Final loan amount was \$3,796,332.

SETTLEMENT CANYON IRRIGATION CO., TOOELE, UTAH

Settlement Canyon Irrigation Co. is located in Tooele County, Utah, in and near the city of Tooele, about 35 miles southwest of Salt Lake City. It contains about 1,171 irrigable acres.

The loan financed construction of a storage dam creating a reservoir of 1,150 acre-foot capacity and a pressurized irrigation distribution system.

The total estimated cost of the project is \$1,290,500, of which the company's contribution amounts to \$33,500. An allocation to fish conservation has been made in the amount of \$189,000, one-half of which (\$94,500) has been granted to the company, and one-half of which (\$94,500) is to be repaid by the company without interest. At present, approximately 32 percent of the project lands is devoted to nonagricultural uses. At the end of the repayment period it is estimated that 50 percent of the project lands will be devoted to such uses. Contract 14-06-400-3034 was executed with the company on May 6, 1963, amended April 12, 1967, and provides for repayment to the United States of \$1,162,500. Included in this amount is the fish conservation loan of \$94,500, which will be repaid in 50 successive annual principal installments graduated from \$310 to \$3,850. The remainder of the loan (\$1,068,000) will be repaid in 50 successive annual principal installments graduating from \$3,000 to \$39,200. Interest at the rate of $3\frac{7}{8}$ percent will be paid on the portion of the initial loan, and $3\frac{1}{4}$ percent on the supplemental loan, attributable to furnishing irrigation benefits to excess land and on the portion allocated to furnishing water for nonagricultural uses. The non-agricultural use of water shall be computed by the company annually.

The present irrigable area for service is 1,048 acres, with 687 acres being irrigated in 1969. The gross crop value and average value per irrigated acre for 1969 are \$57,342 and \$83.47, respectively.

SOUTH DAVIS COUNTY WATER IMPROVEMENT DISTRICT, BOUNTIFUL, UTAH

The South Davis County Water Improvement District is located in the south end of Davis County on the foothills of the Wasatch Mountains immediately south of Bountiful and about 5 miles north of Salt Lake City. It contains about 850 irrigable acres, of which 25 percent was in residential use in 1958.

The loan financed construction of a pressure irrigation distribution system consisting of pipelines and regulating reservoirs.

Contract 14-06-400-808 was executed with the District on September 3, 1958, and provides for repayment to the United States of a maximum loan amount of \$634,000, payable in 40 successive principal installments graduating from \$5,000 to \$21,000. Interest at the rate of $3\frac{1}{8}$ percent per annum will be paid on that portion of the unpaid loan attributable to furnishing irrigation benefits to excess land in the District, and on 25 percent of the unpaid loan allocated to domestic purposes. At 5-year intervals a survey is to be made to determine the nonagricultural land use. The loan obligation will bear interest according to such findings. In 1968 the nonagricultural use was determined to be 68 percent.

The project was declared completed on September 30, 1960, with an actual loan obligation of \$570,933.

SOUTH SAN JOAQUIN IRRIGATION DISTRICT, MANTECA, CALIF.

South San Joaquin Irrigation District is located in San Joaquin County, California, near Manteca. It contains about 68,500 irrigable acres.

The purpose of the project was to rehabilitate the District's existing distribution system to conserve OM&R costs. It was originally planned to install 171.5 miles of cast-in-place concrete pipe, necessary outlets, and control works and to replace unlined ditches. Because of an economical construction program, the District was permitted to construct an additional 30 miles of pipeline. This required an amendatory contract. Construction was initiated in December 1960 and completed in 1966.

Contract 14-06-200-8690 was executed with the District on September 22, 1960, and provides for repayment to the United States of a maximum loan amount of \$4,900,000 in 34 successive annual principal installments, to be paid at the rate of \$50,000 each for the first through fifth year, and thereafter for the sixth through thirty-fourth years the payments are to be $1/29$ th of the balance of the loan. Interest at the rate of $4\frac{1}{8}$ percent is charged on that portion of the loan attributable to furnishing irrigation benefits to excess land in the District.

Final cost was \$5,618,116, with loan amount of \$4,892,838. Repayment commenced January 30, 1967.

SOUTH SUTTER WATER DISTRICT, EAST NICOLAUS, CALIF.

South Sutter Water District is located in Sutter County, California. It contains about 51,000 irrigable acres. While the distribution system is designed to serve practically all of the irrigable area, the average annual project surface water supply available permits only about one-third of the total irrigable area to be served in any one year.

The loan was used to finance a major portion of construction of the Camp Far West Dam with a height of 175 feet, length of 3,700 feet, active storage capacity of 104,000 acre-feet; rehabilitation and enlargement of diversion works, about 22 miles of main canal, and about 80 miles of distribution system. Source of water is the Bear River.

The total estimated cost of the project was \$6,427,577. The District's contribution was estimated at \$1,551,977. All of the remaining \$4,875,600 is allocated to irrigation. Contract 14-06-200-8683 was executed with the District on September 21, 1960, and provides for repayment of a maximum loan amount of \$4,875,600 in 50 successive annual principal installments graduating from \$5,000 to \$175,000. Interest at the rate of $4\frac{1}{8}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land in the District and, should such a use later develop, to that portion allocated to furnishing a water supply for domestic and municipal and industrial uses. The project was completed on April 1, 1964.

The total project cost was \$8,119,254, which consisted of the Federal loan of \$4,703,808 and the District contribution of \$3,415,446. First payment was made by the District on December 30, 1964.

WALKER RIVER IRRIGATION DISTRICT, YERINGTON, NEV.

The District comprises all the irrigable land on the East, West, and Main Walker Rivers and tributaries in the State of Nevada, with the exception of those lands in the Walker River Indian Reservation. The total area of the District is 260,000 acres. About 80,000 acres are served by the District, with 58,000 acres in production. Little or no new lands are served by the project.

Construction, consisting of river channel and spillway improvement, canal lining, drain improvement, District shop and office, was accomplished under Region 4. The project was transferred to the jurisdiction of Region 2 in October 1959, at which time about half the loan amount of \$693,000 had been advanced. Repayment contract 14-06-400-813 totaled \$563,000.

Flood control benefits of \$130,000 creditable to Bridgeport Reservoir were allocated by the Corps of Engineers. The District then experienced delay in completing its construction program by its inability to obtain agreement with Mono County and the State of California concerning raising the water surface of Bridgeport Reservoir and obtaining rights-of-way as provided by the repayment contract. Consequently, certain flood control aspects, Bridgeport Dam enlargement, and construction of the equalizer canal were deleted from the project, and an amendatory contract was executed February 7, 1966. The loan amount was reduced to \$224,548 without the project being constructed as contemplated. The District made a prepayment of \$69,743 on February 7, 1966. Repayment period is 40 years with annual installments.

WATER SUPPLY AND STORAGE CO., COLO.

The Water Supply and Storage Co. is located north of Fort Collins, Colo. The company irrigates 37,425 acres in Larimer and Weld Counties, Colorado, with water rights in the Cache la Poudre River. The area served by the company has been irrigated for the past 70 years. Supplemental water is obtained from the Colorado-Big Thompson project of the Bureau of Reclamation and the company's transmountain diversions from the Colorado, Laramie, and Michigan Rivers. The company proposes to improve its system for importation of Colorado River water by enlarging Long Draw Reservoir from 4,400 to 11,000 acre-feet, or by about 6,600 acre-feet, and by rehabilitating a portion of the 13.5-mile Grand River Ditch which diverts water from the Colorado River watershed across the Continental Divide to Long Draw Reservoir.

Project cost is estimated at \$1,748,100, consisting of a loan of \$1,355,700, a grant of \$360,500 for fish and wildlife and recreation, and a company contribution of \$31,900.

The cost of specific recreation facilities, consisting of a boat ramp, campgrounds, picnic areas, parking areas, etc., at Long Draw Reservoir is estimated at \$192,400.

The loan was approved September 15, 1969, by the Secretary of the Interior. Repayment contract negotiations are currently under way for repayment over a 50-year period. The U.S. Forest Service will operate and maintain the recreation facilities at Long Draw Reservoir.

WEBER-BOX ELDER CONSERVATION DISTRICT, LOAN NO. 1, OGDEN, UTAH

Weber-Box Elder Conservation District is located in Weber and Box Elder Counties in northcentral Utah.

About 1,400 irrigable acres within two separate areas of the District, identified as Unit A and Unit B, are included in the project.

The loan financed the construction of a pressure irrigation distribution system, consisting of pipelines and equalizing reservoirs for each of the units.

The total cost of the project was \$330,458, with a District contribution amounting to \$28,000. Of the remaining \$302,458, \$138,733 is for constructing works in Unit A, and \$163,725 is for constructing works in Unit B. Forty-one percent of the cost of Unit A and 5 percent of the cost of Unit B are allocated to furnishing water for residential and other nonagricultural uses. Contract 14-06-400-1678 was executed with the District on September 27, 1960, and provides for repayment to the United States of a maximum loan amount of \$304,000. The \$138,733 for Unit A is to be repaid in 25 successive annual principal installments graduating from \$1,420 to \$16,210. The \$163,725 for Unit B is to be repaid in 50 successive annual principal installments graduating from \$630 to \$10,720. Interest at the rate of $4\frac{1}{8}$ percent will be paid on the portion of the unpaid loan attributable to furnishing irrigation benefits to excess lands in the District and on the portion of the unpaid loan allocated to furnishing water for residential and other nonagricultural purposes. At 5-year intervals a survey will be made to determine any increase in lands designated as nonagricultural and the loan obligation will bear interest according to such determination.

Unit A was 78 percent nonagricultural use and Unit B was 14 percent in 1965.

The project was declared completed August 31, 1962, at a cost of \$330,458. The first annual installment was made in March 1964.

WEBER-BOX ELDER CONSERVATION DISTRICT, LOAN NO. 2, OGDEN, UTAH

The Weber-Box Elder Conservation District is located in Weber and Box Elder Counties in northcentral Utah. The project area contains about 1,400 irrigable acres. The area to be served by this second project lies between Unit A and Unit B of the first project.

The loan financed construction of a pressure irrigation distribution system, consisting of pipelines, equalizing reservoirs, and pumps.

The total cost of the project is \$857,000. The District's contribution amounts to \$46,000. Of the remaining \$811,000, 16 percent is allocated to furnishing water for residential and other nonagricultural purposes. Contract 14-06-400-2477 was executed with the

District on June 28, 1962, and provides for repayment to the United States of a maximum loan amount of \$811,000 in 45 successive annual principal installments graduating from \$6,000 to \$41,200. Interest at the rate of $3\frac{3}{4}$ percent will be paid on the portion of the loan attributable to furnishing irrigation benefits to excess land in the District and on the portion allocated to

furnishing water for residential and other nonagricultural purposes. At 5-year intervals a survey is made to determine any increase in lands designated as non-agricultural and the loan obligation will bear interest according to such increase.

The nonagricultural use was determined to be 18.3 percent in 1967.

PART B

DISTRIBUTION SYSTEM LOANS ACT, PUBLIC LAW 130, ACT OF JULY 4, 1955 (69 STAT. 244), AS AMENDED

ARVIN-EDISON WATER DISTRICT, ARVIN, CALIF.

The Arvin-Edison Water District is located in Kern County, California, south and east of Bakersfield and between the Kern River and the Tehachapi Mountains. The District's gross acreage is 131,660 acres, of which 124,047 are irrigable.

The District constructed a distribution system of about 175 miles to deliver CVP water to District lands to alleviate the progressive ground water decline and provide good quality water in that portion of the District where underlying ground water has been polluted by boron. About 1,000 acres are used to spread and percolate class 2 water to underground reservoirs. The project works consist of an intake canal which takes water from the terminus of the Friant-Kern canal and conveys it through a 14-mile-long concrete-lined canal to the main pumping plant, lifts it 190 feet, and distributes it through the Arvin-Edison canal and a series of smaller canals, pipelines, pumping plants, and related works. Although 78,547 acres are eligible to receive project water, about 48,000 acres will be served by the water available from the distribution system, while 41,000 acres will continue to use water from deep wells. The stored water will be recovered by 71 deep wells. About 28 wells are operative and 33 are scheduled for construction in early 1971, with no definite plans for scheduling the remaining wells.

The maximum loan is \$41,000,000, with a District contribution of \$4,600,000. As of December 31, 1969, the system was about 91 percent completed. After an inspection of the completed works, a cutoff date of September 1, 1969, was established to transfer completed works to O&M.

Contract 14-06-200-284A was executed with the District on October 25, 1962, and provides for repayment to the United States of a maximum loan amount

of \$37,153,644 in 80 successive semiannual principal installments graduating from \$125,000 to \$225,000. The first installment will become due and payable on February 1 following the expiration of the 5-year development period.

BROADVIEW WATER DISTRICT, FIREBAUGH, CALIF.

The District is located in Fresno County about 45 miles west of Fresno, Calif. Its gross area is 9,813 acres, of which 9,780 are considered irrigable. On February 5, 1963, the District applied for a loan of \$1,144,400 to enlarge and extend the District's existing distribution system to permit use of an additional 11,000 acre-feet of Delta-Mendota canal water. Total estimated construction cost was \$1,200,400. It was planned that drainage facilities would be constructed by the District with funds derived from improvement bonds.

Contract 14-06-200-903A, executed May 15, 1964, provides repayment of the loan in 80 successive semiannual installments, the first of which became due February 1, 1967. Amendatory contract 14-06-200-903A, dated July 11, 1966, amended original contract by providing for a District office, warehouse, shop facilities, and purchase of maintenance equipment.

Construction got underway in the fall of 1964, and the completion cutoff date was established on September 1, 1967. No loan funds were used for drainage facilities.

CHOWCHILLA WATER DISTRICT, CHOWCHILLA, CALIF.

Chowchilla Water District is located in Madera County, California, about 15 miles northwest of Madera and about 40 miles northwest of Fresno. It contains about 54,665 irrigable acres.

The purpose of the loan was to finance construction of a distribution system to connect with its existing distribution system to serve lands not included in the existing system. It consists of a main canal from the

Madera canal to its present system; the extension, enlargement, and rehabilitation of about 29 miles of canals and 66 miles of concrete rubber-gasket and cast-in-place pipelines to improve existing facilities; and construction of several small distribution systems to serve additional areas. Construction commenced February 1961.

Contract 14-06-200-8094 was executed with the District on November 23, 1959, and, as amended on October 25, 1962, provides for repayment to the United States of a maximum loan amount of \$3,250,000 in 40 successive equal annual principal installments.

The total cost of the project was \$3,551,021, with a loan amount of \$3,250,000 and \$301,021 contributed by the District. June 1, 1964, was the official construction cutoff date and five annual payments have been made to date.

FEATHER WATER DISTRICT, YUBA CITY, CALIF.

The Feather Water District is located on the west side of the Feather River and east of the Sutter Bypass of the Sacramento River in Sutter County, California, about 8 miles south of Yuba City. It contains about 7,400 irrigable acres.

The loan was used to finance construction of a distribution system of a combination of cast-in-place monolithic pipe and rubber-gasket jointed precast concrete pipe. Pumping is from the Feather River into two small reservoirs, from which distribution is made by gravity through pipelines. Construction commenced in September 1963 and was completed August 1967. Construction also included a shop and office building.

The total cost of the project to December 31, 1969, was \$2,455,815. The District's contribution amounted to \$68,913. Contract 14-06-200-286A was executed with the District on October 26, 1962, and provides for repayment to the United States of a maximum loan amount of \$2,500,000 in 76 successive semi-annual installments graduating from 0.75 percent of the loan obligation to 1.40 percent.

Water is delivered from the Feather River on an exchange basis whereby equal amounts are released from the Sacramento River.

August 31, 1967, was the official date established for completion of construction. A 5-year development period started January 1, 1965, and the first of 76 semi-annual payments was due August 1, 1969.

GARFIELD WATER DISTRICT, CLOVIS, CALIF.

Garfield Water District is located midway between Friant Dam and the city of Fresno, Calif., about 2 miles west of the Friant-Kern canal. It contains about 1,730 irrigable acres.

The loan was used to finance construction of a high and low pressure pipeline distribution system to serve all the District's irrigable lands. Contract 14-06-200-9890 was executed March 9, 1962. Construction started in June 1962 and was completed January 1963. The final cost of the project was \$399,691, with a loan of \$386,378 and a District contribution of \$13,313. The first loan payment was made August 14, 1964, and payments are continuing semiannually as scheduled.

LEWIS CREEK WATER DISTRICT, LINDSAY, CALIF.

The District comprises 1,239 acres in Tulare County, California, most of which is irrigable. The District applied for a Public Law 130 loan in December 1964 to construct a gravity pipe distribution system to convey Friant-Kern canal water to District lands. The system includes a traveling water screen at the Friant-Kern canal turnout, about 7.3 miles of underground concrete and asbestos-cement pipe ranging in size from 6 to 24 inches in diameter, and 37 metered turnouts. The system will irrigate an additional 605 acres.

A loan of \$395,000 was approved in April 1965. Construction commenced July 1966 and was completed December 1967 at a total cost of \$406,777.

On October 6, 1965, the District entered into contract 14-06-200-2381A for repayment of the loan in 38 years, with a development period of 5 years. First loan payment is due February 1, 1972.

PROBERTA WATER DISTRICT, RED BLUFF, CALIF.

Proberta Water District is located about 6 miles south of Red Bluff in Tehama County, California. It contains about 2,530 irrigable acres.

Prior to the loan, the District had no distribution facilities. The loan financed construction of a distribution system, consisting of about 10 miles of concrete or cement-asbestos pipe in sizes ranging from 10- to 36-inches in diameter to carry water from the Corning canal to lands in the District. The system also includes an earth-lined (rock protected) control reservoir of 185,000-gallon capacity. The project was completed September 1, 1963.

The total cost of the project was \$594,468. The District's contribution amounted to \$2,572. Contract

14-06-200-9573, executed with the District on November 9, 1961, provides for repayment to the United States of a maximum loan amount of \$600,000 in 40 successive equal annual installments, the first of which will become due April 1, 1973, following an 8-year development period.

**SAUCELITO IRRIGATION DISTRICT,
PORTERVILLE, CALIF.**

Saucelito Irrigation District is located in Tulare County, San Joaquin Valley, California, and is served by the Friant-Kern canal. It contains about 17,330 irrigable acres.

The loan was made to finance the construction of a pipe distribution system to replace a partial temporary distribution system of open unlined ditches. Construction started July 1960.

The total estimated cost of the project was \$4,712,500. The District's contribution amounted to \$13,815. Contract 14-06-200-8095 was executed with the District on November 25, 1959, and provides for repayment of the loan in 40 successive equal annual installments. A 2-year development period was allowed.

The distribution system was completed February 1962. The final cost was \$3,600,106, an underrun of about \$1,112,394. The loan amount is \$3,586,291 and the first payment was made in February 1963.

**SOLANO IRRIGATION DISTRICT, VACAVILLE,
CALIF.**

Solano Irrigation District is located in Solano County near Fairfield, Calif. It contains about 68,000 irrigable acres, northeast and southwest of Vacaville.

The loan financed construction of a distribution and drainage system to serve 38,800 acres by unlined gravity canals, 21,430 acres by gravity pipeline, and

7,790 acres above the Putah South canal of the Solano project by concrete pipe-lift system with 57 pumps. Some of the gravity pipeline is low head, monolithic, cast-in-place concrete. Construction was initiated December 1957 and completed October 1966.

Contract 14-06-200-6456, executed with the District on June 12, 1957, provided for a loan of \$12,302,000, which was later increased to \$15,050,480 by amendatory contract dated September 8, 1961. Payment is made semiannually; the first installment was paid January 31, 1968, and the loan will be repaid in 40 years. The District has contributed \$754,070 to project costs to date; some rights-of-way matters are continuing, however.

**TERRA-BELLA IRRIGATION DISTRICT,
TERRA-BELLA, CALIF.**

Terra-Bella Irrigation District is located in Tulare County and surrounds the town of Terra-Bella. It is in the Millerton Lake service area and contains about 11,000 irrigable acres.

A loan of \$1,900,000 was approved February 1958 to construct a supplemental distribution system, consisting mainly of primary pumping plants and primary transmission mains. The total project cost was \$2,170,218, with \$270,218 contributed by the District. Water is obtained from the Friant-Kern canal. The project was completed March 1960. Contract 14-06-200-7120 was executed with the District April 28, 1958. It provides for repayment to the United States of \$1,900,000 in 76 successive equal semiannual installments, commencing July 15, 1969, and following a 4-year development period. The District, using its own funds, constructed irrigation facilities to complete the project and to serve lands added to the District after the Public Law 130 project was completed.

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